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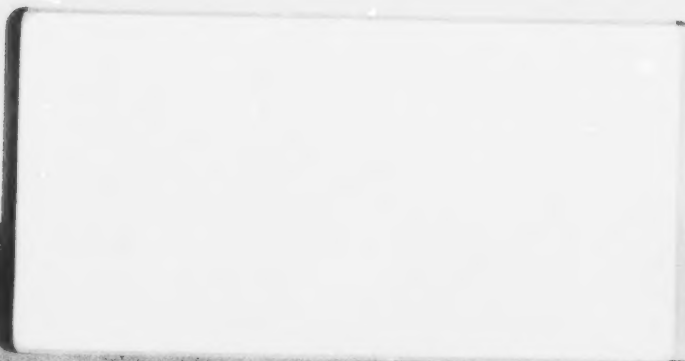
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FISHING VESSELS

**Summaries of Reports of Investigations
into Marine Casualties and Accidents
Aboard Ships**

Issue No. 3

December 1987

Summaries of Fishing Vessel Marine Casualties and Accidents

This publication summarizes investigation reports on marine casualties and/or marine accidents involving fishing vessels which were investigated by the Marine Casualty Investigations Division of Transport Canada and is published three times a year. There is another publication covering commercial vessels and other craft.

Note:

1. A glossary of terms and abbreviations used can be found at the end of this publication.
2. Unless stated otherwise, all times mentioned in this publication are local times.

The full report of the summaries contained herein may be obtained by writing to:

Chief
Marine Casualty Investigations
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Room 800
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Their contents may be deficient and misleading if used in any other process and are not to be used or admitted in evidence in any legal proceedings, either civil or criminal, arising out of any casualty described therein. The statements, opinions and findings in the reports and summaries are those of the Marine Casualty Investigations Division only and do not constitute admissions made by or on behalf of Her Majesty the Queen in right of Canada.

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"SUNBIRD"

Loss of vessel and disappearance of operator, in Queen Charlotte Sound, B.C., on September 23/24, 1986.

Summary .

The "SUNBIRD" was a small fishing vessel of 6 tons, gross tonnage, built of wood in 1952 and operated as a gillnetter. Being less than 15 tons, gross tonnage, she was not subject to inspection by the Ship Safety Branch, Canadian Coast Guard. A re-evaluation survey was carried out by the insurance company in 1985 and the policy validated. The vessel was adequately equipped with navigation equipment, including radar, and her life-saving equipment was as required by the Small Fishing Vessel Inspection Regulations. Neither an inflatable liferaft, an emergency position indicating radiobeacon, nor immersion/survival suits were aboard, and by regulation such equipment was not required.

The "SUNBIRD" was reported to have dry-docked at Alert Bay, B.C. in August, 1986, to repair the rope guards. Persons who were aboard the vessel in September, while she was alongside at Alert Bay, reported that the electric/automatic bilge pump had been operating almost continuously. The operator of the "SUNBIRD" reportedly mentioned to some of her colleagues that the shoe was loose and the horn timber was in poor condition, and that those items would be attended to when they returned to Bella Coola.

At 1146, September 23, 1986, the operator of the "SUNBIRD" telephoned the CGRS Alert Bay, and received the latest weather information, which indicated that gale warnings were in effect for the areas to be transited by the vessel. At about 1200, the "SUNBIRD" departed Alert Bay bound for her home port of Bella Coola by way of Queen Charlotte Sound and Fitz Hugh Sound (see Fig.1). The operator was the only person on board and the vessel carried neither cargo nor fishing nets.

The operator of the "SUNBIRD" contacted the CGRS, Alert Bay, by radiotelephone on VHF channel 16, at 1704, September 23. She mentioned that the vessel was approaching Pine Island, indicated that all was well, and requested a weather update. The radio operator requested that she switch over to VHF R/T channel 26 as the reception on channel 16 was not clear. The operator of the "SUNBIRD" gave an affirmative reply but the radio operator was then unable to re-establish contact with the "SUNBIRD".

At 1740, September 23, the lightkeeper at Pine Island sighted the "SUNBIRD" in Gordon Channel approximately three-quarters of a mile off shore from Pine Island. The vessel

was reported to be proceeding without problems in a north-westerly direction and there was no radio contact between the lightkeeper and the operator of the "SUNBIRD". She appeared to be heading out into the open coastal waters of Queen Charlotte Sound and, in approaching darkness, intending to navigate the more confined waters off Egg Island and through south Passage.

At about 1145, September 26, RCMP, Bella Coola, was contacted by next of kin of the operator of the "SUNBIRD" who were concerned that the vessel was overdue. Local enquiries were made and an attempt was made to contact the "SUNBIRD" by radio. Victoria, was advised and at about 1215 it was decided that no further action would be taken at that time because the "SUNBIRD" could possibly have stopped somewhere en route.

On the morning of September 27, when the "SUNBIRD" had still not arrived in Bella Coola, official search and rescue procedures were put into action and a full-scale search was initiated utilizing three SAR aircraft and two SAR vessels. The sea and weather conditions were generally not good but SAR operations continued until October 1, covering approximately 6,000 square miles with a total of 138 hours search time. Wreckage and debris from the "SUNBIRD" were found spread over a large area of the sea and along the shorelines but the operator was not found. The operator was later declared by a coroner's inquiry to have suffered accidental death by drowning.

Inspection of the wreckage of the "SUNBIRD" revealed serious deterioration of the lower hull with severe wastage of some of the galvanized boat nail fasteners and rot in planks, frames, stringers and stern timbers. (See photographs)

The operator of the "SUNBIRD" was reported to have been capable, knowledgeable of the waters and conditions likely to be encountered on the intended voyage, and to have normally sailed alone for about six years. She did not possess a sea-going Certificate of Competency, nor by regulation was such certificate required to operate the "SUNBIRD". There is no record of a valid licence for the radiotelephone being in effect at the time of the casualty and the operator did not possess the required Restricted Radiotelephone Operator's Certificate (Maritime).

Findings

The precise cause for the loss of the fishing vessel "SUNBIRD" and her operator is not known but it would appear

to be due to one of the following:

- a loss of propulsion power or steering and the vessel being forced onto rocks, flooded and broken apart by the seas; or
- an error in navigation and the vessel striking a rock and flooding; or
- the failure of a plank below the waterline and flooding; or
- a major structural failure of the hull due to stresses imposed by the sea.

Based on the evidence, and in the absence of a distress message, sudden striking of rocks and major structural failure are considered the most probable causes.

The following factors may also have contributed to this casualty:

- initially proceeding into open coastal waters without an accompanying vessel or vessels; and
- thereafter proceeding into confined waters in uncertain sea and wind conditions at the onset of darkness; and
- proceeding to sea in a vessel the hull of which was reported and observed to be in poor condition.

Other Findings

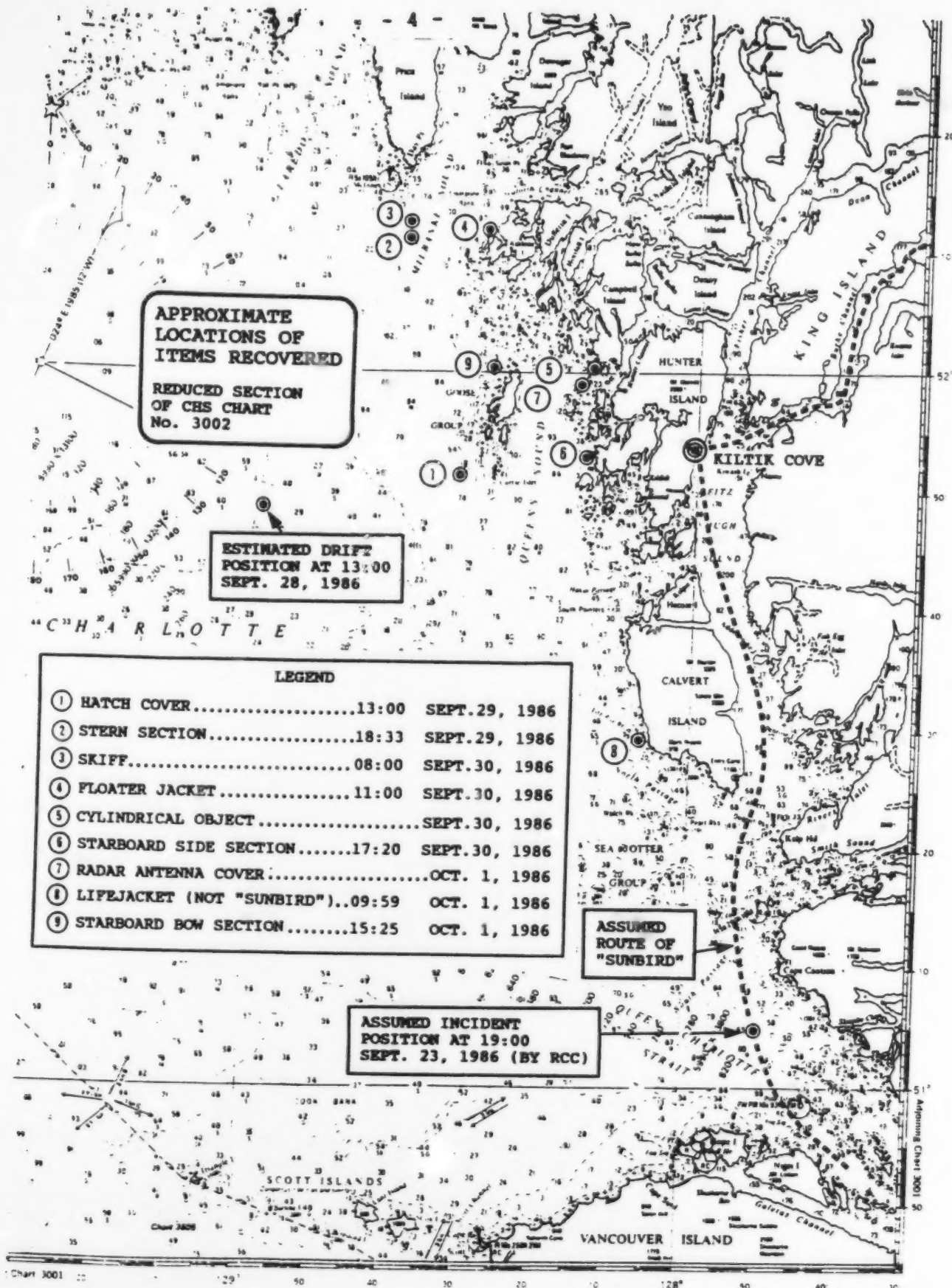
The operator proceeded from Alert Bay into Queen Charlotte Strait after having received notice of a gale warning being in effect for that area.

The carriage of an inflatable liferaft and/or an immersion/survival suit may have improved the chance of survival of the operator.

The operator did not hold a Restricted Radiotelephone Operator's Certificate as required by the General Radio Regulations.

The carriage and deployment of an EPIRB would have provided an earlier awareness of the casualty.

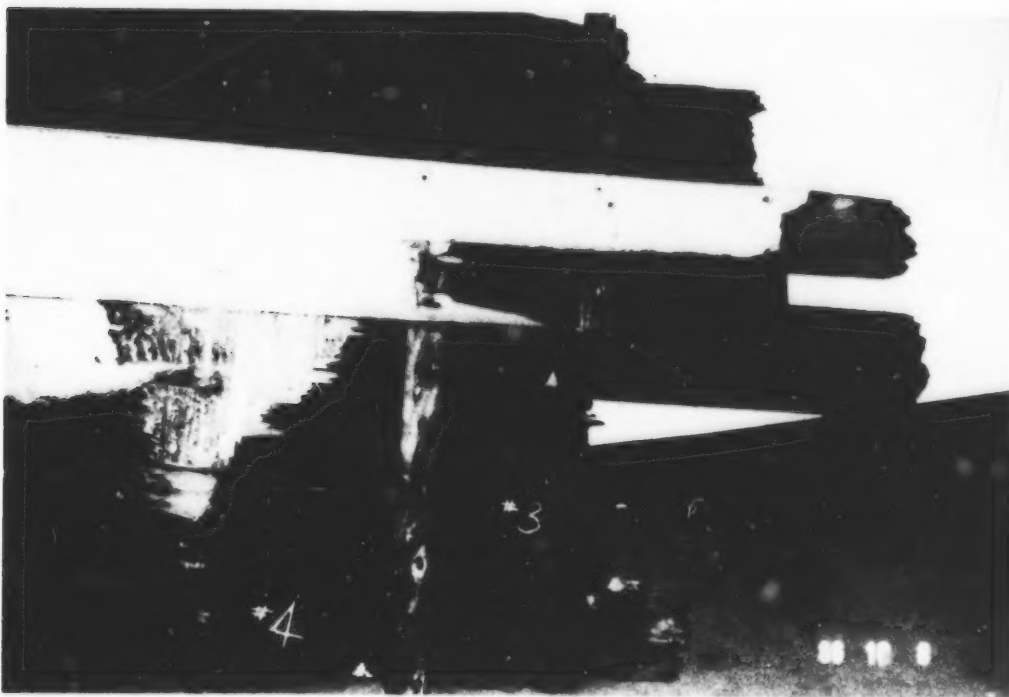
It is considered that SAR resources responded promptly with regard to the circumstances and were utilized in an efficient and effective manner.





Starboard bow section showing planking.

Section avant tribord démontrant les planches du bordé.

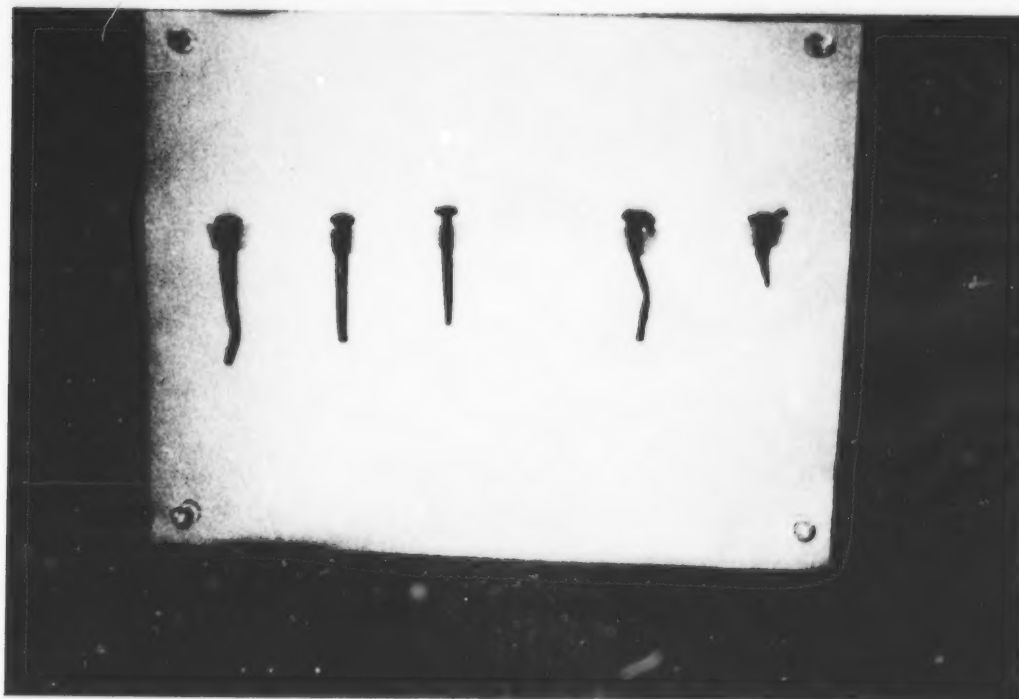


Bow section.

Note: Lower planks rotted. Upper planks and stringers in good condition.

Section avant.

Nota: Pourriture des planches inférieures.
Les planches supérieures et les serres
en bon état.

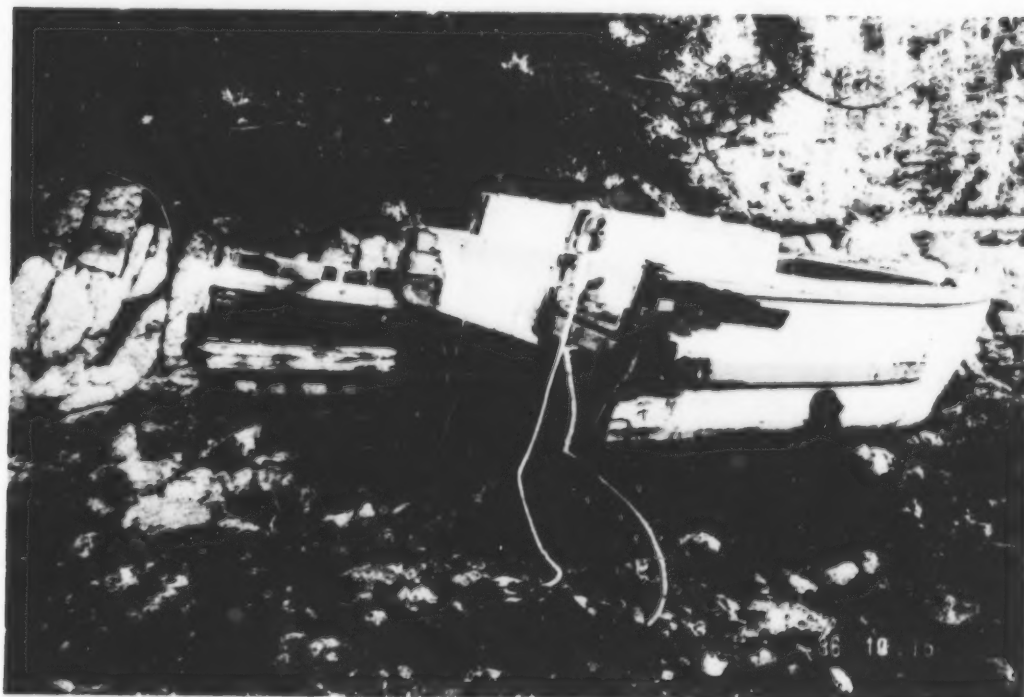


Galvanized boat nails from bow section.

Note: Typical wastage of nails shown on right.

Clous d'embarcation galvanisés de la section avant.

Nota: Gaspillage typique de clous démontré à droite.



Stern section of "SUNBIRD".

Section arrière du "SUNBIRD".

"GLORIA ANN"

Sinking of the Canadian fishing vessel with a loss of life,
in Fisher Channel, B.C., March 6, 1987.

Summary

The Canadian fishing vessel "GLORIA ANN" was a typical carvel-built wooden gillnetter built by two local craftsmen in New Bella Bella, B.C. in 1956. Non-watertight wooden bulkheads divided the vessel's below deck space into a forward crew compartment, engine-room, fish hold and lazaret aft. Access to the crew accommodation and to the engine-room was directly from the wheel-house. The vessel was equipped with one electric bilge pump located in the engine-room and a manual pump on the main deck abaft the deck-house; there was reportedly no bilge water alarm.

The vessel was 10.36 m long and, being under 15 gross tons, the "GLORIA ANN" was not required to be inspected by the Ship Safety Branch of the Canadian Coast Guard. However her fish hold was inspected for cleanliness by the Department of Fisheries and Oceans prior to the commencement of each fishing season. There is no record of the vessel having been inspected for insurance purposes.

The vessel was old and reportedly had not been properly maintained since she was built, her wooden structure had deteriorated considerably and she was taking water through the leaky, neglected seams. Only the almost continuous action of the bilge pump reportedly kept her afloat.

The "GLORIA ANN" departed New Bella Bella, at about 1000 March 6, 1987 with a crew of three and no cargo on board. She was towing a herring skiff which was to be repaired at Namu, B.C. some twenty-five miles away. The passage was uneventful and the vessel arrived at Namu at about 1500. After leaving the skiff at the repair yard, the crew attended to business ashore, and returned to the vessel for a meal; two crew members other than the deceased consumed some alcohol with their meal. The "GLORIA ANN" then departed Namu for the return trip to New Bella Bella at 1800 the same day.

In south-easterly winds at 15 knots gusting to 25 and with the tide ebbing in a southerly direction, the "GLORIA ANN" proceeded with the engine at full throttle to keep up with another vessel some five miles ahead and proceeding to the same destination. At about 1850, the helmsman sensed a change in the sound of the engine, the steering felt sluggish and a 'thump' was reportedly heard coming from the after part of the vessel. On looking aft, the afterdeck was observed to be awash and water was seeping

through the bulkhead into the wheel-house. He opened the engine-room hatch and saw that compartment partially flooded. At 1855, realizing that the vessel was sinking, the operator transmitted a 'MAYDAY' message on VHF R/T channel 6 and moments later the engine stalled and the vessel lost power. However the deck-hand continued transmitting the 'MAYDAY' message on channel 6 using a portable VHF R/T. Their transmissions were acknowledged and the vessel was advised that help was on the way.

Attempts at pumping the water out of the vessel with a hand pump were futile. In the darkness and general confusion that followed, the crew abandoned the sinking vessel at about 1915 without donning lifejackets each holding on to something that would float. The operator became separated from the two deck-hands who stayed together. When the lights of a rescue vessel were visible one of the deck-hands complained of feeling cold, lost his grip on a buoy and disappeared. At 1950, two rescue vessels arrived on-scene and rescued the operator and one deck-hand while the search for the third crew member continued. RCC was only informed at 1954, at which time official SAR response commenced. A total of 22 marine units and two air units participated in SAR operation but the missing crew member was not found. The search was called off at 1812, March 7 and the case handed over to the RCMP as a missing person case.

The operator and one deck-hand were experienced fishermen while the deceased deck-hand had negligible experience.

Findings

From the available information and a lack of evidence to the contrary, it would appear that a major contributing factor to the sinking of the fishing vessel "GLORIA ANN" was the flooding of her underdeck compartments caused by the generally deteriorated and unseaworthy condition of the vessel due to her age and the lack of proper progressive maintenance.

One crew member lost his life due to the following contributory factors:

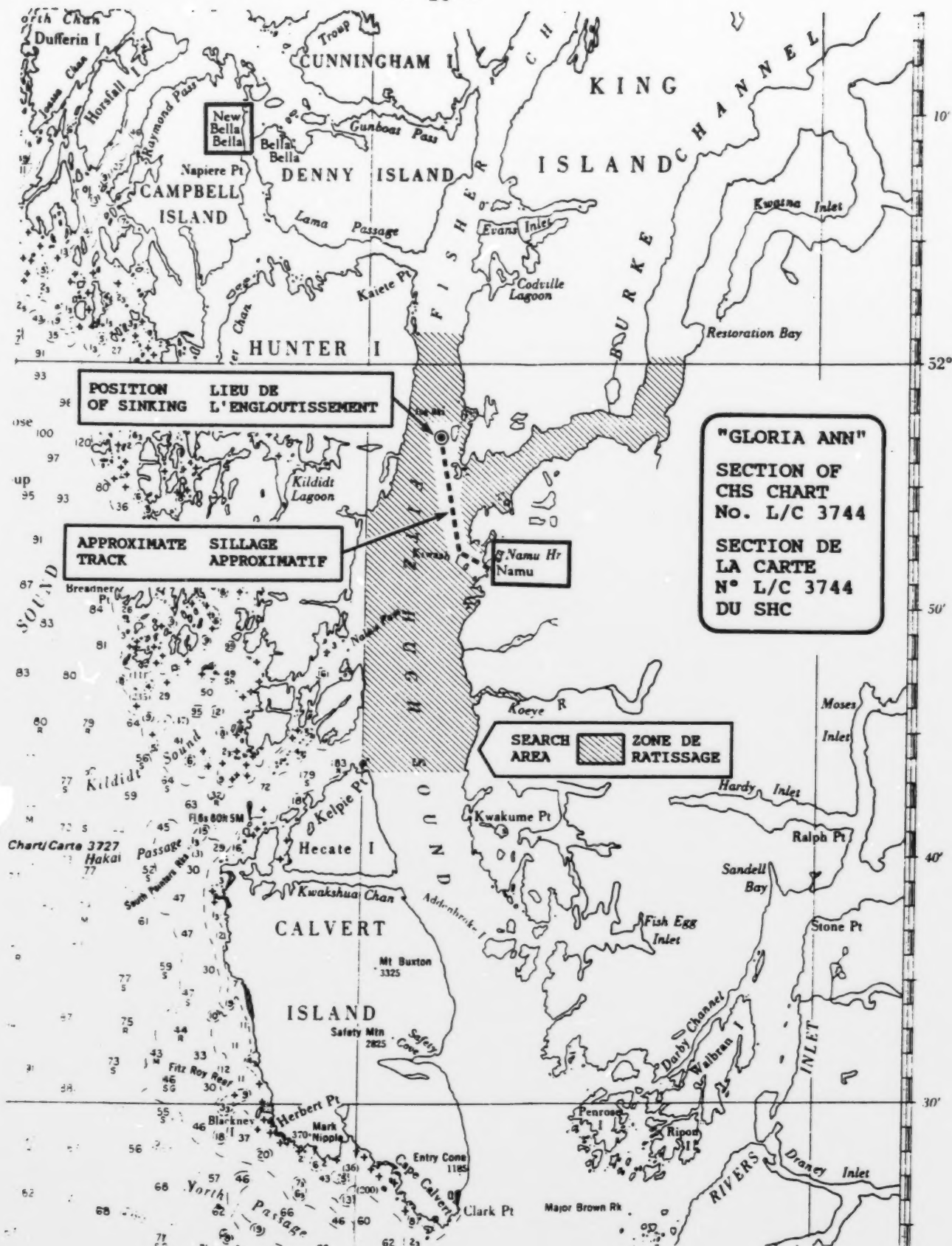
- he had not donned a lifejacket when he abandoned the vessel;
- the cold water temperature limited his survival time to between 1-2 hours had he donned the lifejacket; and

- the distress message was transmitted on channel 6 instead of channel 16, the International Distress Safety Calling frequency and as a consequence SAR units were not informed until about one hour after the initial 'MAYDAY' broadcast resulting in loss of valuable time.

Other Findings

The response of the residents and rescue vessels, at a local level, was prompt and positive.

Neither the VHF R/T aboard the "GLORIA ANN" was licensed nor was the operator in possession of a Restricted Radiotelephone Operator's Certificate as required by the Radio Act and the General Radio Regulations, respectively.



"YAN MARYSE"

**Flooding and subsequent sinking in Cabot Strait,
April 5, 1987.**

Summary

The "YAN MARYSE", a 50 gross ton wooden fishing vessel, was built in 1965 and registered in Cap aux Meules, Quebec. Below the main deck, the vessel was divided into 4 compartments by 3 bulkheads as follows: the crew accommodation forward, followed by the fish hold, the engine-room and the lazaret.

The vessel was equipped with two submersible-type bilge pumps, one main engine-driven and the other electrically-driven. These pumps with a capacity of 27 m³/h and 20 m³/h respectively could draw water from various compartments. The bilge manifold was located in the engine-room in the vicinity of the access-ladder. In addition to these bilge pumps, the vessel was also equipped with a manual bilge pump, capacity 5 m³/h, located on the main deck.

In 1985, following inspection of the entire hull of the "YAN MARYSE", extensive caulking was carried out where necessary and a sheathing was fastened externally on both sides of the hull in way of the waterline. The vessel was also hauled on a slip in March 1987 at which time none of the hull planking was found to be damaged.

On the eve of April 5, the "YAN MARYSE" accompanied by the fishing vessel "LADY MAGGIE II" departed Port aux Basques, Nfld. bound for Sydney, N.S. The vessel was manned by the skipper and a seaman for this passage and the rest of the crew were to join the vessel in Sydney. In NE winds at 10-15 knots, slight sea and overcast skies with 4 miles visibility, the "YAN MARYSE" steered a course of 200° (M) at a speed of 8-9 knots, half a mile astern of the "LADY MAGGIE II". At about 2300, when the skipper went down to the engine-room, much to his surprise, he found water up to his knees but he could not establish the point of ingress. The vessel was not making water in other compartments.

Since leaving Port aux Basques, the voyage had progressed normally in open waters and neither jolts nor vibrations were felt nor was any noise heard by the crew.

Although the engine-room flooded rapidly, the main engine continued to run but the bilge pumps were not activated. The skipper contacted the "LADY MAGGIE II" on VHF R/T channel 6 requesting assistance as his vessel was sinking.

The "LADY MAGGIE II" turned around immediately and

headed towards the vessel in distress. By this time, the "YAN MARYSE" had stopped on her own with her stern awash. The crew launched the liferaft and abandoned the fishing vessel and were immediately rescued by the crew of the "LADY MAGGIE II". The "YAN MARYSE" was observed sinking by the stern in position 46°55'N, 59°31'W at about 2345 on April 5, 1987. The insured value of the vessel was \$132,500.

The foundering of the "YAN MARYSE" was reported to Port aux Basques Coast Guard Radio Station by the skipper of the "LADY MAGGIE II" who indicated that the survivors were safe aboard his vessel. The "LADY MAGGIE II" continued her voyage to Sydney where the survivors were landed ashore at 1300 on April 6, 1987.

Findings

While crossing the Cabot Strait at night and in good weather conditions, the wooden fishing vessel "YAN MARYSE" sank due to the rapid flooding of the engine-room.

In the absence of wreckage available for inspection, it was not possible to determine the precise cause nor origin of the ingress of water in the engine-room but it would appear that the flooding may have been caused by either one or a combination of the following factors:

- the rupture of a sea connection/pipe;
- ingress of water through the stern gland; and
- a rupture in the hull planking.

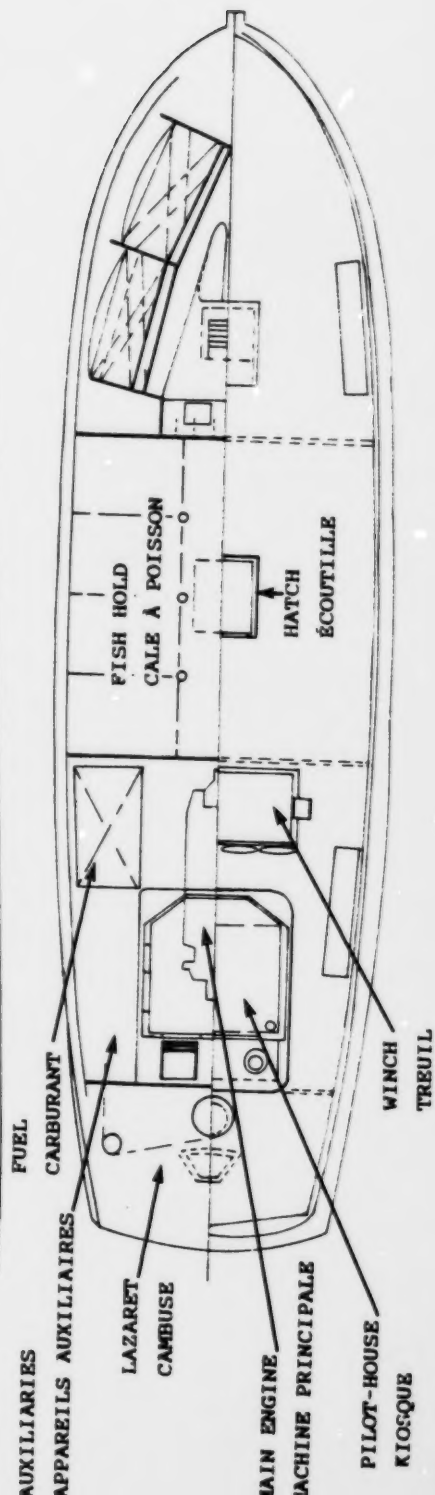
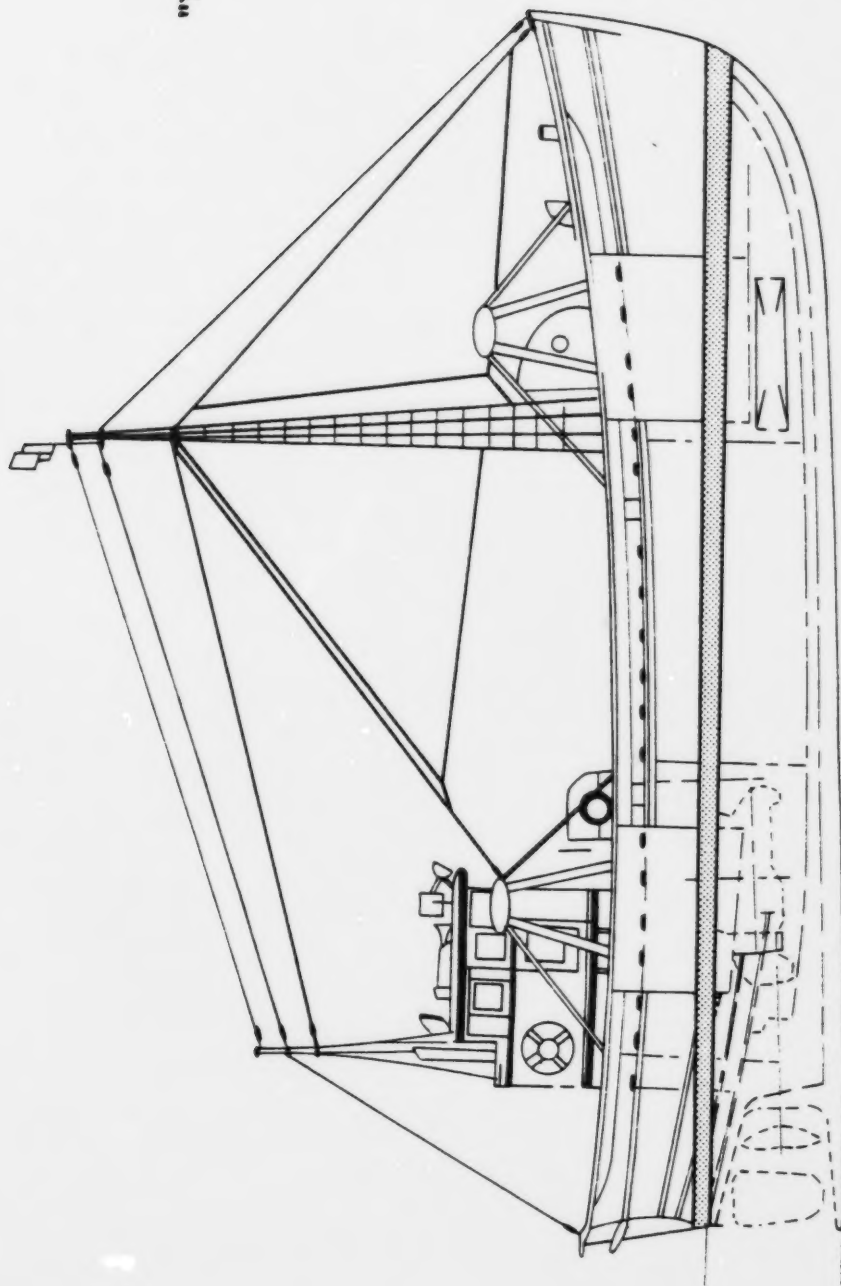
Other Findings

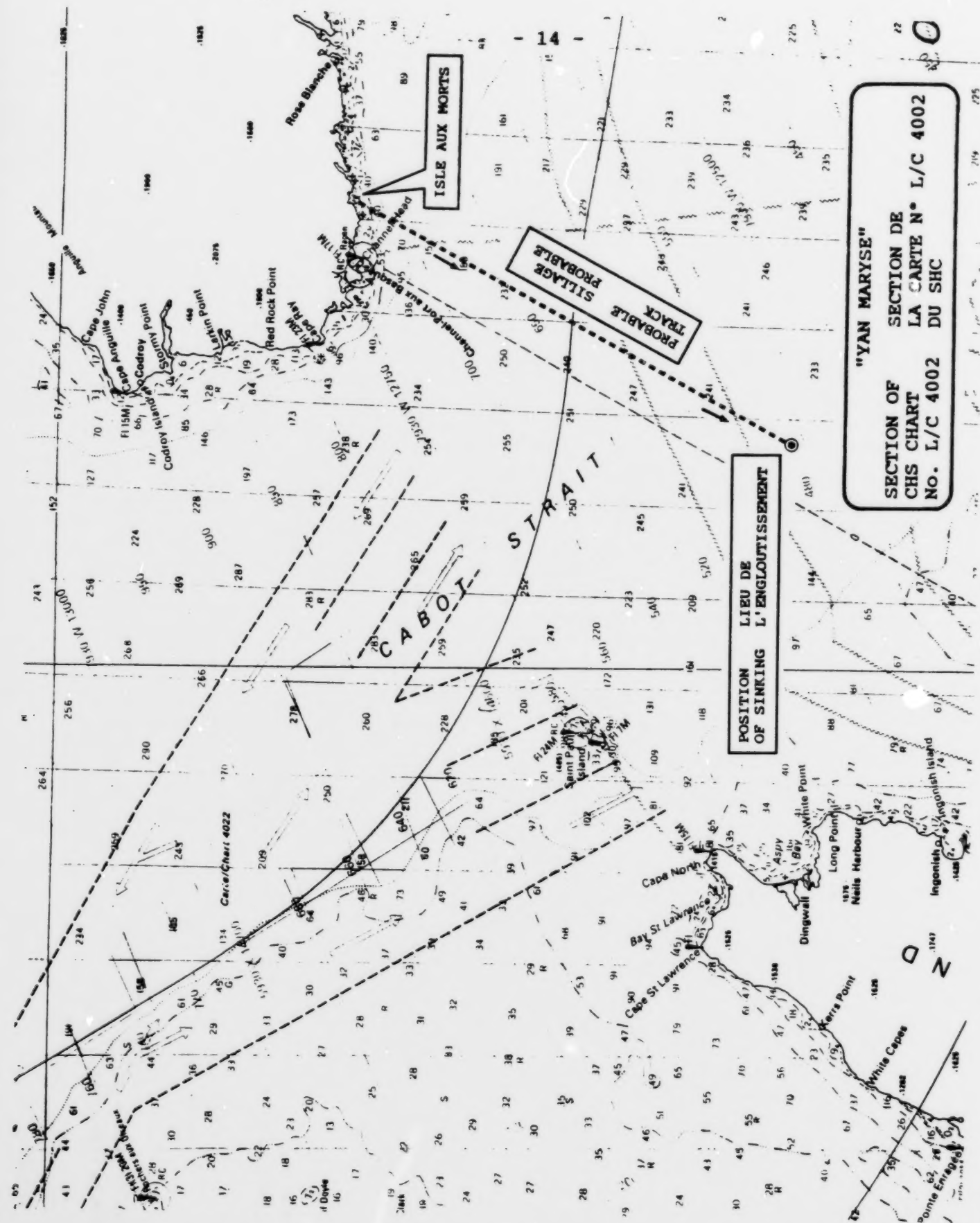
None of the 3 bilge pumps were used in an attempt to try and control the ingress of water.

The rescue of the survivors by the crew of the "LADY MAGGIE II" was prompt and efficient.

No distress call was transmitted on the International Distress, Safety Calling frequency, channel 16, VHF R/T.

"YAN MARYSE"





"YAN MARYSE"

SECTION OF
CHS CHART
No. L/C 4002

"MARGARET H"

**Sinking with the loss of one life, in the waters off
Kyuquot, B.C., April 29, 1987.**

Summary

The 11 gross ton "MARGARET H" was a small fishing troller constructed of wood in 1945 in Vancouver, B.C. She was typical of her type as a double ender with her bow higher than the stern. Her engine was located forward of midships under the wheel-house. There were two watertight bulkheads, one at each end of the fish hold which separated it from the engine-room forward and the lazaret aft. Being under 15 gross tons, the "MARGARET H" was not required to be inspected by the Ship Safety Branch of the Canadian Coast Guard. However, the vessel was last surveyed in July 1982 for insurance purposes but, as the insurance premium was not paid, the policy was cancelled in September 1986.

In January 1987 while the vessel remained alongside the wharf in Fair Harbour, the "MARGARET H" had sunk; the reason given by the owner was that some children might have switched the automatic bilge pump off. The owner towed his vessel ashore, cleaned the engine with fresh water and diesel and was able to put her back in service. The radar, depth recorder, radios, autopilot were damaged and not repaired and remained so at the time of casualty. The operator's son had given him a VHF R/T which he used on the last trip but reportedly it was not in good working order as the transmissions were weak and broken.

The operator of the "MARGARET H" was seen boarding his vessel and departing from the small dock in Kyuquot at 0730, April 29. Nobody knew where he was going but one hour later a friend who received a call from the operator on VHF channel 6 was informed that everything was normal. At approximately 1100, another small fishing vessel that was returning from Fair Harbour and had earlier heard the operator on radio, contacted the "MARGARET H" on VHF R/T channel 6 and inquired about the fishing conditions. The "MARGARET H" intimated that he had fished off Lookout Island, that the catch was poor and that he expected to return in the early afternoon.

The wind at the time was from the south-east at about 20 knots, visibility was good and the sea had a moderate chop from the steady wind.

Normally, the operator always returned to Kyuquot at around 1400-1430 and when he was not seen, his family and friends started searching for him but the "MARGARET H" was only reported to the authorities as being overdue at 1003 the

next day. This set in motion SAR operations utilizing a total of 2 air units and 8 marine units and continued until May 5 when the case was handed over to the RCMP as a 'missing person' case.

Debris, later identified as being from the "MARGARET H", was found in the afternoon of April 30, around Lookout Island. On May 5, the wreck of the "MARGARET H" was located in position 50°01'N, 127°27'W and the next day, RCMP divers searched what was left of the hull but did not find the missing person.

The "MARGARET H" was known to have been low on fuel at the time of her departure from port and the possibility exists that she may have run out of fuel. Also, according to the track usually followed by her, the "MARGARET H" would have had to transit areas infested with rocks/shoals in order to reach Kyuquot. Hence, had the vessel run aground either due to an error in navigation or as a consequence of running out of fuel, she could have been pushed onto the rocks by the continued effect of the wind and the tide. The action of the waves pounding the small vessel against the rocks could have further contributed to her destruction.

The casualty resulted in the loss of the operator and the loss of the "MARGARET H"; the latter was not insured but her value while insured was \$30,000.

Findings

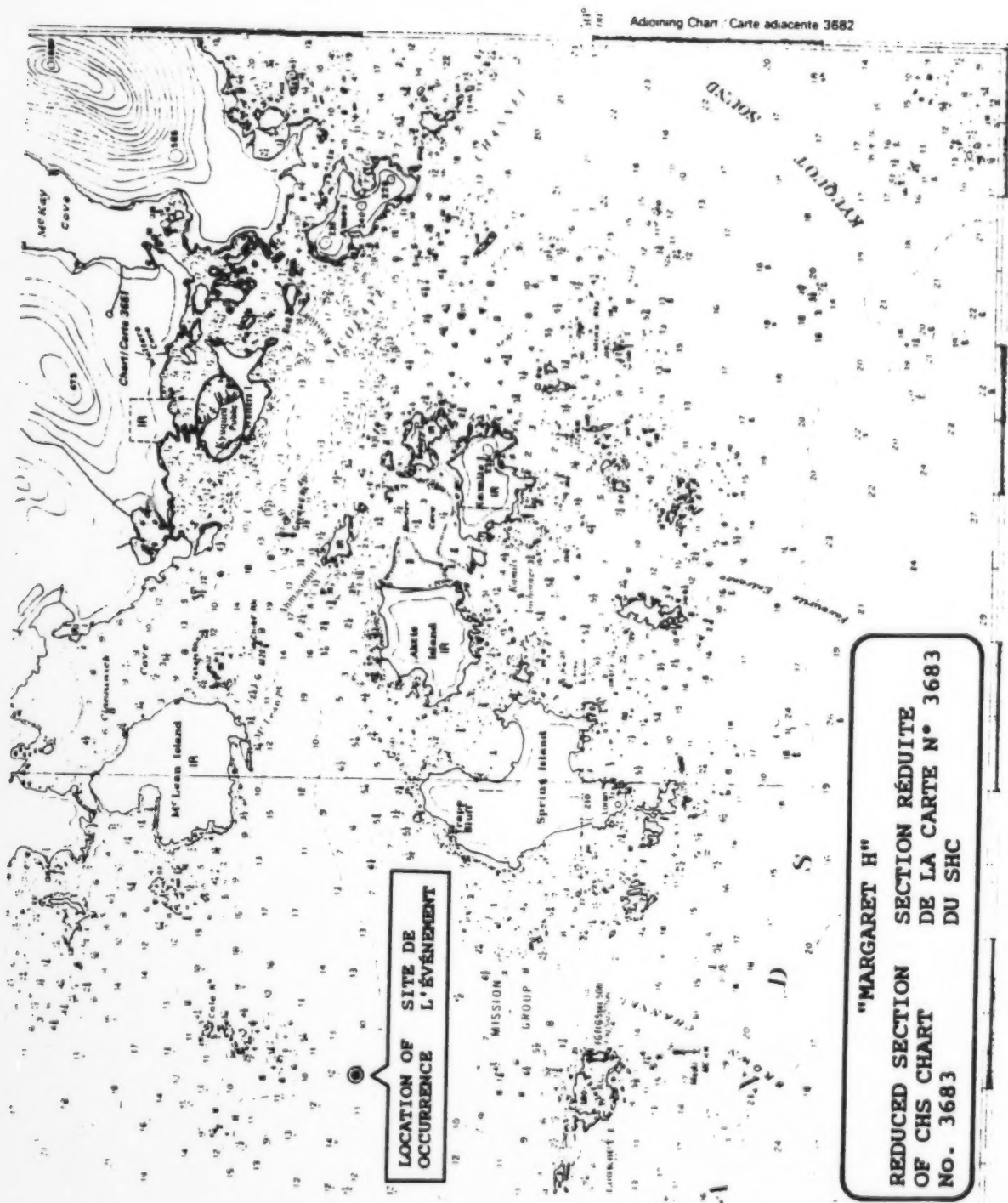
In the absence of evidence from a survivor and the lack of sufficient wreckage of the "MARGARET H" for inspection purposes, it is not possible to precisely ascertain the cause of this casualty; however, accepting the probability that the vessel grounded during her return passage, it would appear that the following factors contributed to the casualty and presumed loss of life:

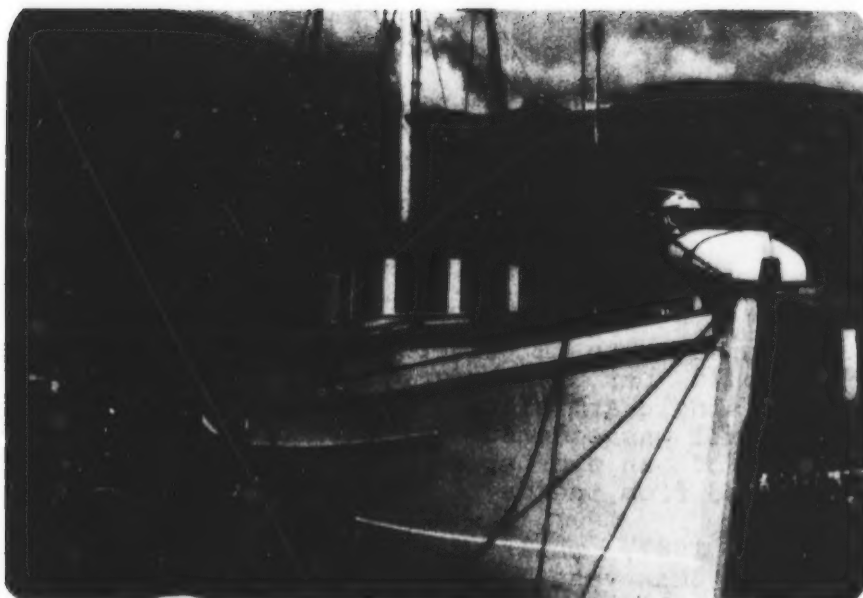
- the vessel's navigating equipment was not operational and the performance of the substitute VHF set was poor;
- the vessel was reportedly low on fuel on departure;
- wind and sea conditions were moderate and therefore, less than ideal for a small vessel;
- the vessel's hull was in poor condition;
- no distress radiotelephone message was heard; and

- life-saving equipment was minimal and unlikely to sustain life for more than a short period of time in water temperature and sea conditions which existed.

Other Findings

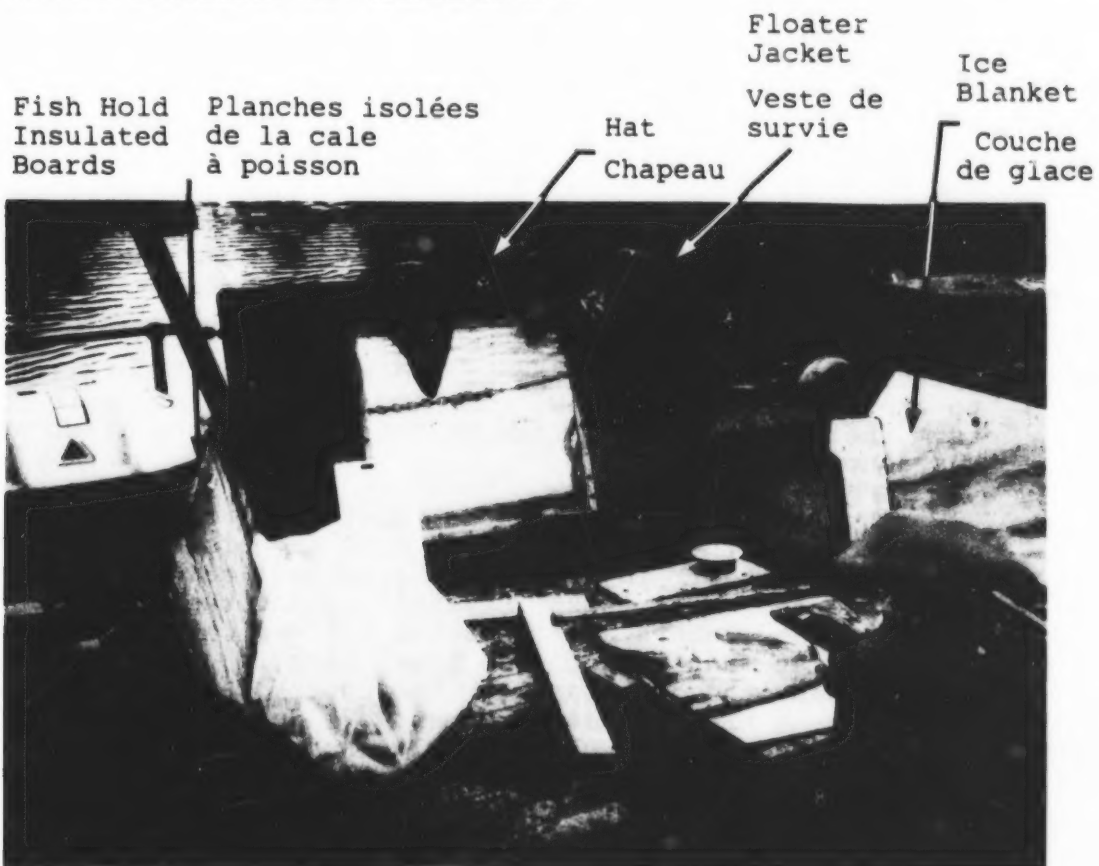
Neither the VHF R/T aboard the "MARGARET H" was licensed nor was the operator in possession of a Restricted Radiotelephone Operator's Certificate as required by the Radio Act and the General Radio Regulations, respectively.





Vessel similar to the "MARGARET H".

Navire semblable au "MARGARET H".



Debris from the "MARGARET H".

Débris parvenant du "MARGARET H".

"ZORY"

Lifeboat fall parted injuring two crew members off the east coast of Newfoundland, May 16, 1987.

Summary

The 651 gross ton, Canadian steel-hulled offshore trawler "ZORY" is registered in St. John's, Nfld. The vessel, equipped with a lifeboat mounted on chocks on the boat-deck, could be launched by a double whip purchase attached to a single arm slewing davit. The standing part of the lifeboat fall was secured directly to a lug on the davit head by means of an eye splice; no thimble or shackle was used. Suspended from the davit head was a single lifeline.

On May 16, 1987, whilst fishing some 200 miles north-east of Nfld., the vessel received a radio message at 1820 from the company plant informing the cook of a death in the family. Arrangements were made with another company vessel, the "ATLANTIC MARIE", fishing some 3-4 miles south of the "ZORY" which was due to depart for Marystown, Nfld., to transport the cook to Trepassey en route. After hauling in her nets, the "ZORY", in SW'ly winds at 5-8 knots, 0.6 m seas and dense fog, headed towards the "ATLANTIC MARIE" and during transit the lifeboat was prepared for the transfer.

When in proximity to the "ATLANTIC MARIE", the cook and second engineer aboard the "ZORY" boarded the lifeboat wearing lifejackets and hard hats. They sat facing one another with the cook on the after thwart and the second engineer on the forward one; neither man held onto the lifelines. The lifeboat was then winched from its chocks, the davit swung out and the boat ready to be lowered, when suddenly, without warning, the fall parted in way of the eye splice, allowing the lifeboat and the crewmen to fall freely to the sea some 3 m below. On impact, both men were thrown from their seated positions to the floor of the lifeboat and sustained injuries.

The launching crew on the boat-deck responded quickly and brought the two injured crew members back aboard the "ZORY" where their injuries were attended to. The accident was reported to CGRS St. Anthony and the Health Science Centre in St. John's was contacted for medical advice. Upon learning the details of the lower back injury to the second engineer and the deep gash to the upper back of the cook's left leg, a MEDEVAC was recommended. Search and Rescue were contacted and, as a MEDEVAC could not be effected due to foggy conditions, the vessel was advised to proceed to St. Anthony where hospital facilities were available. However, the master, aware of the ice conditions en route to St. Anthony, decided instead to take a quicker ice-free route

to Catalina which, although further, could be reached in about the same time.

The injured crew members were landed at Catalina at 2015, May 17 and were taken by waiting ambulance to Bonavista Cottage Hospital some 16 km away. They were later transferred to the Health Science Centre at St. John's where they remained for treatment until released, the second engineer on May 30 and the cook on June 2.

The vessel was subject to steamship inspection which included the examination of the life-saving equipment, the last inspection having been completed on April 16, 1987. Also, examination of the available company maintenance records dating back to 1984 indicated that the fall had not been replaced nor changed end for end since that time and that the lifeboat equipment was checked at regular intervals and no adverse comments noted. However, inspection of the fall following the accident revealed that it lacked lubrication and that the lay was dry inside.

Findings

The second engineer and the cook of the Canadian stern-trawler "ZORY" sustained injuries when the lifeboat, being used to transfer the cook to another company vessel, fell some 3 m to the water when the standing part of the lifeboat fall parted at the spliced eye, which end of the cable was affixed to the davit head.

It would appear that the following factors contributed to this casualty:

- the lifeboat davit fall had been spliced to the davit arm lug without the use of a thimble in the splice or a connecting shackle;
- the davit fall had been in service for a period of two to three years or longer and the fall wire had not been 'end-for-ended' during this period;
- the fall lacked lubrication and the inside lay was dry;
- both men boarded the lifeboat prior to its launching; and
- contrary to accepted practice and good seamanship, the lifeline was not used by either man when the boat was being launched.

E-NEUVE

- 22 -

POSITION
AT TIME
OF INCIDENT

POSITION
AU MOMENT
DE L'INCIDENT

TO ST. ANTHONY
A SAINT-ANTHONY

TO CATALINA
A CATALINA

NEWFOUNDLAND/TERRE-NEUVE

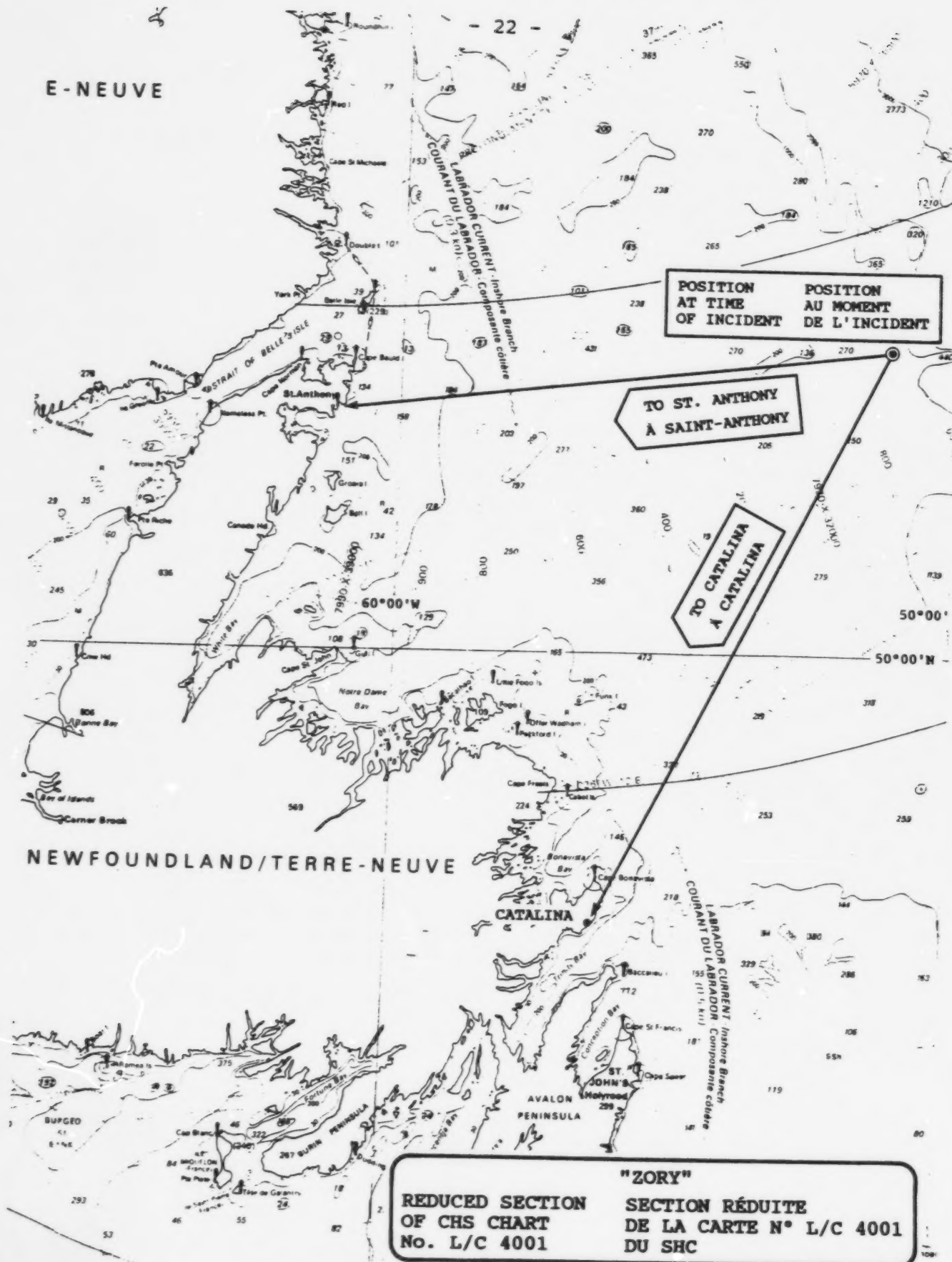
CATALINA

AVALON
PENINSULA

"ZORY"

REDUCED SECTION
OF CHS CHART
No. L/C 4001

SECTION RÉDUITE
DE LA CARTE N° L/C 4001
DU SHC





Lifeboat and davit aboard "ZORY".
Canot de sauvetage et bossoir à bord du "ZORY".

Chocks Chaumards



View of davit looking aft.
Vue du bossoir vers l'arrière.

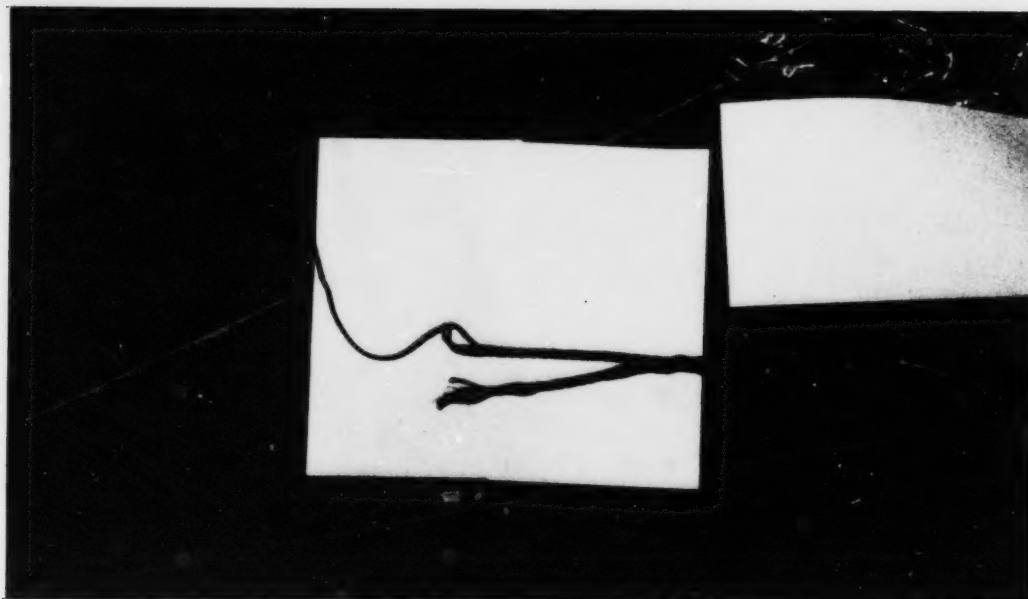


View looking to starboard.

Note: The davit fall attached to the lug at davit head.

Vue vers tribord.

Nota: Garant frappé au piton sur la tête du bossoir.

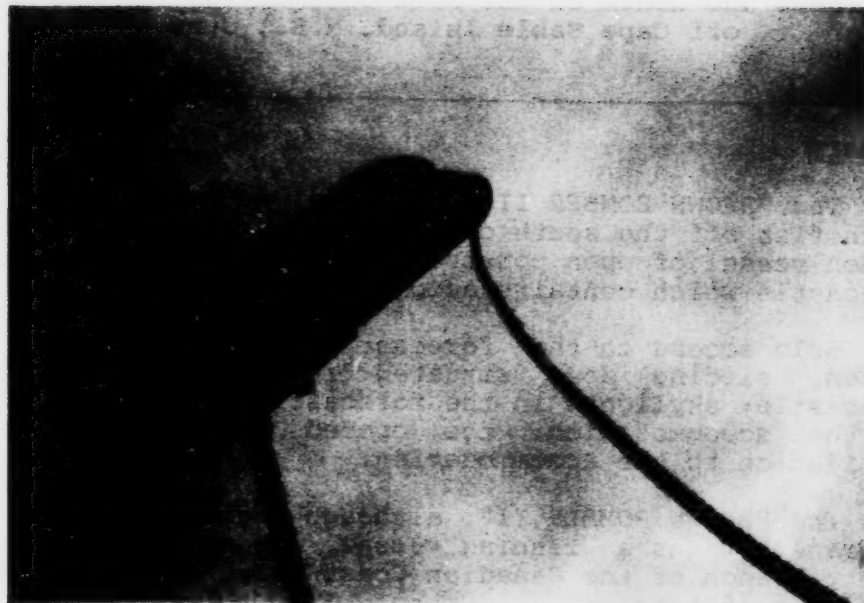


Splice on davit fall.

Note: The parting of davit fall within the eye splice.

Garant du bossoir épissé.

Nota: Le garant du bossoir s'est rompu au niveau de l'épissure à oeil.



Head of davit. Tête du bossoir.



Lifeboat of "ZORY". Canot de sauvetage du "ZORY".

"BROWN BOMBER II"

**Illness and death of the sole occupant at the fishing grounds
off Cape Sable Island, N.S., June 10, 1987.**

Summary

The "BROWN BOMBER II" is typical of many vessels of her type which fish off the south coast of Nova Scotia. She is an all wooden vessel of open construction; the forward part has a raised forecastle which contains accommodation.

Sole access to the forecastle accommodation is made via a wooden, sliding door situated in the after bulkhead of the forecastle; skylights in the forecastle deck provide illumination to the accommodation; the opened door is the sole means of ventilation to the accommodation.

The "BROWN BOMBER II", although registered with the Ministry of Transport as a fishing vessel, is not inspected by the Ship Safety Branch of the Canadian Coast Guard as her gross tonnage is less than 15 tons.

The "BROWN BOMBER II" departed Clark's Harbour at approximately 0600 on June 10, 1987 and proceeded to the inshore fishing grounds some 8 miles to the south of the harbour and some 3 miles south of Cape Sable. It would have taken about 1 hour to reach the grounds and, on arrival, the operator, who was the sole occupant of the boat, anchored and proceeded to fish by using lines to which weights and baited hooks were attached, a system known as hand-lining.

At 1500 he advised his home by radiotelephone that he was about to complete fishing and would be home at approximately 1700. There was no further radiotelephone contact.

At approximately 1915 the fishing vessel "TWILIGHT TRAVELLER", which was enroute to Shelburne, N.S., observed a fishing vessel ahead. As the distance between the two vessels closed, it was seen that she was the "BROWN BOMBER II" and she appeared to be drifting with her anchor line slack and nobody on deck. Concern was felt on board the "TWILIGHT TRAVELLER" which circled the "BROWN BOMBER II" several times, meanwhile sounding her whistle, but no response was received.

The weather at that time was, wind north-north-west, 20 knots, seas north-west 2 m, fine and clear, visibility approximately 15 miles.

The "TWILIGHT TRAVELLER" manoeuvred alongside the "BROWN BOMBER II" and at 2000, one of her crew members boarded in order to investigate further. Finding nobody in the wheel-house, he

opened the door to the accommodation and discovered it to be filled with thick black smoke; there was a strong smell of propane gas and of burning rubber and flesh. He closed the valve on the propane gas cylinder and then broke the skylights to the accommodation and also some wheel-house windows in order to ventilate the area. He found the operator lying unconscious on his back, head forward, on a bench which ran along the port side of the accommodation; the operator's left foot was on the deck, his right foot on a burner of a stove which was situated at the aft end of the bench. The rubber sea-boot which encased the right foot and leg was badly burned; the burner flame had been extinguished by the ash and debris which covered it but propane gas had been free to leak through the open burner until it was turned off at its source, i.e. the cylinder valve.

Fire damage to the accommodation was minimal and consisted of scorched paintwork on the bench caused by the melting rubber from the sea-boot.

No communication was possible with the victim; he was apparently still alive although unconscious and he did not regain consciousness. The crew member of the "TWILIGHT TRAVELLER" advised his vessel's skipper of the situation and the "BROWN BOMBER II" was taken in tow; at 2023 the "TWILIGHT TRAVELLER" advised Yarmouth (VAU) Coast Guard Radio Station who in turn advised the Rescue Co-ordination Centre (RCC) at Halifax. A 'medical distress-burn victim' communique was then issued and SAR operations initiated.

The "TWILIGHT TRAVELLER" did not have local knowledge of Clark's Harbour which was the nearest port; however, CCGS "CLARK'S HARBOUR" had been tasked at 2049; she left Clark's Harbour at 2055 and met the "TWILIGHT TRAVELLER" at 2135, she took over the tow and returned to Clark's Harbour at 2235. The "TWILIGHT TRAVELLER" continued to Shelburne.

A local doctor examined the victim after arrival and at 2313 reported to RCC that he was dead, having died an estimated 1 hour before arrival; the body was removed to hospital where an autopsy was later performed.

On the results of the doctor's report, the 'medical distress' was cancelled and a helicopter which had become airborne from Summerside, P.E.I. at 2211, in order to attend the scene and if necessary transport the victim to the Halifax hospital burn unit, was stood down.

The autopsy determined the cause of death to have been 'massive intercranial haemorrhage and terminal smoke inhalation' and it is believed that, as the deceased suffered the haemorrhage, he lay down on the bench and became unconscious.

His foot then came into contact with the lit stove burner.

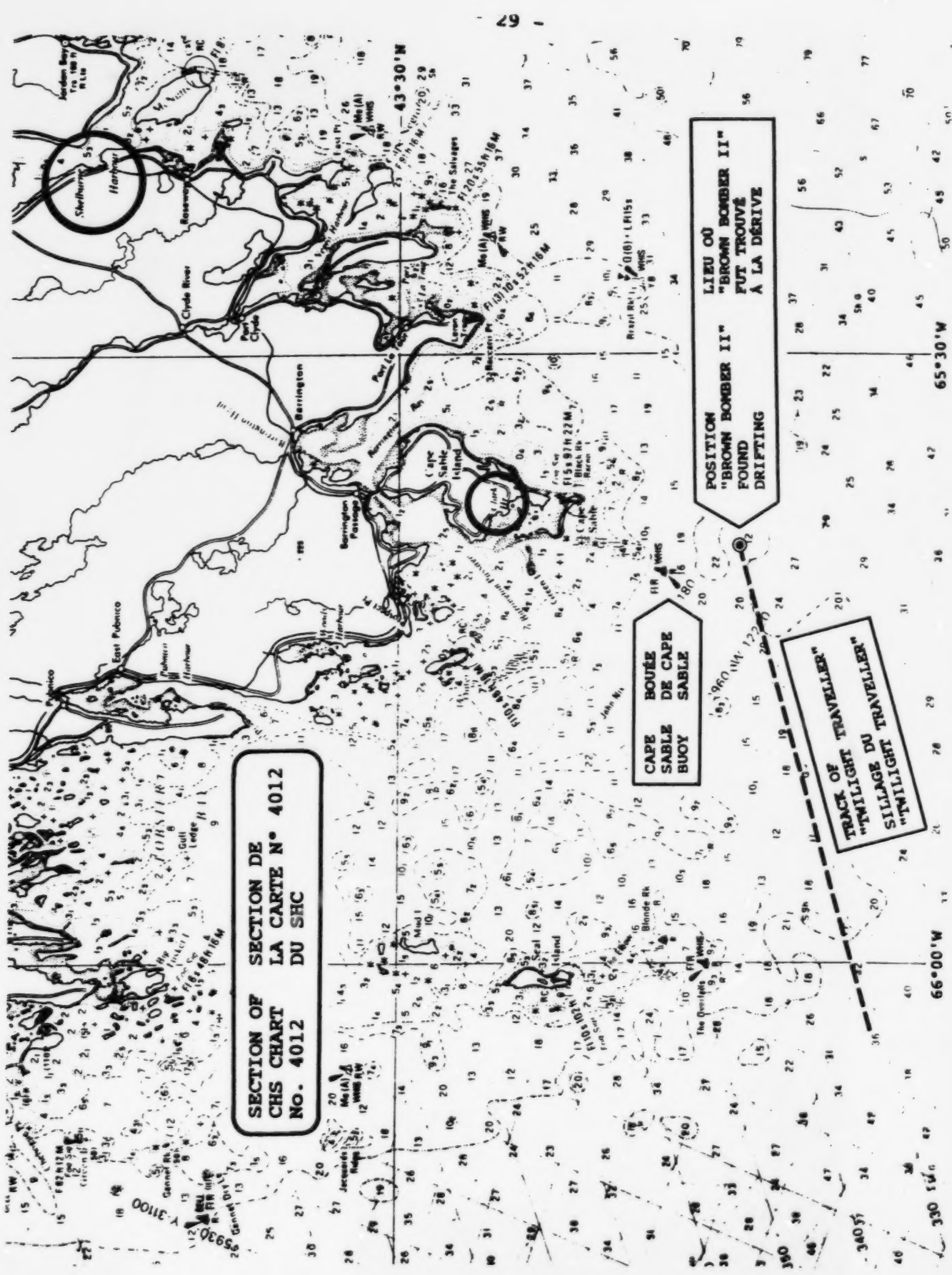
Findings

The sole occupant/operator of the Canadian fishing vessel "BROWN BOMBER II" suffered a brain haemorrhage while at the inshore fishing grounds south of Cape Sable Island, Nova Scotia; the vessel, unattended, was later found adrift.

As a result of the haemorrhage, his footwear came into contact with a lighted stove-burner causing the inhalation of fumes and smoke and further advancing the cause of death.

It would appear that:

- the brain haemorrhage alone was sufficient to cause inevitable death,
- actions taken by the rescuing vessel "TWILIGHT TRAVELLER" were commendable; and
- the casualty emphasizes the extreme danger which the sole occupant of a boat must face if incapacitated to a degree whereby immediate assistance cannot be summoned.

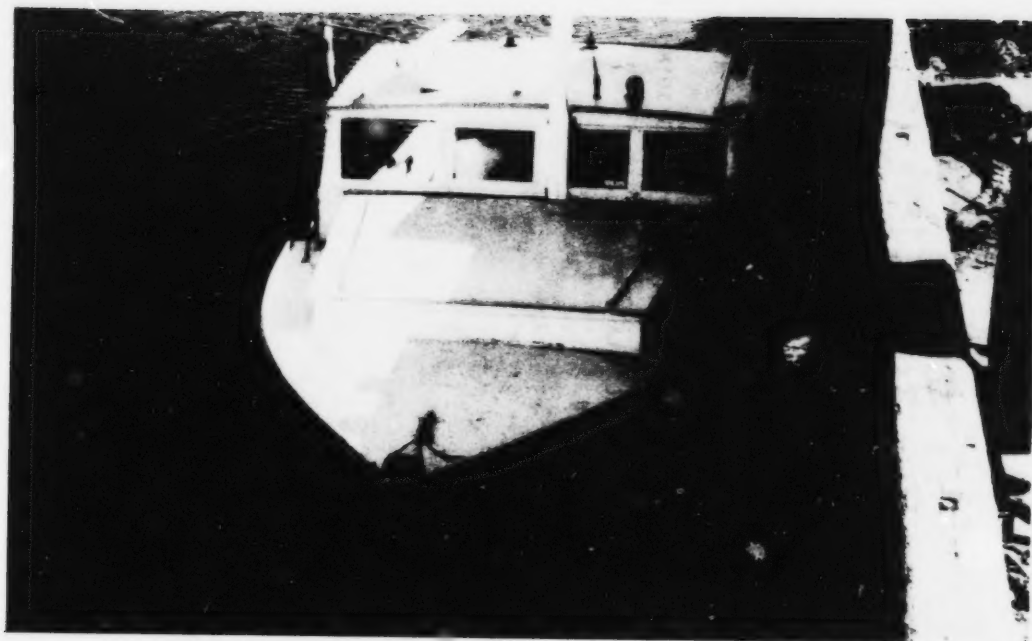


SECTION OF SECTION DE
LA CARTE N° 4012
CHS CHART
NO. 4012
DU SHC

CAPES BOUÉE DE CAPE
SABLE BUOY SABLE

POSITION "BROWN BOMBER II"
"BROWN BOMBER II" FUIT TROUVÉ
À LA DÉRIVE DRIFTING

TRACK OF TRAVELLER
SILLAGE DU TRAVELLER

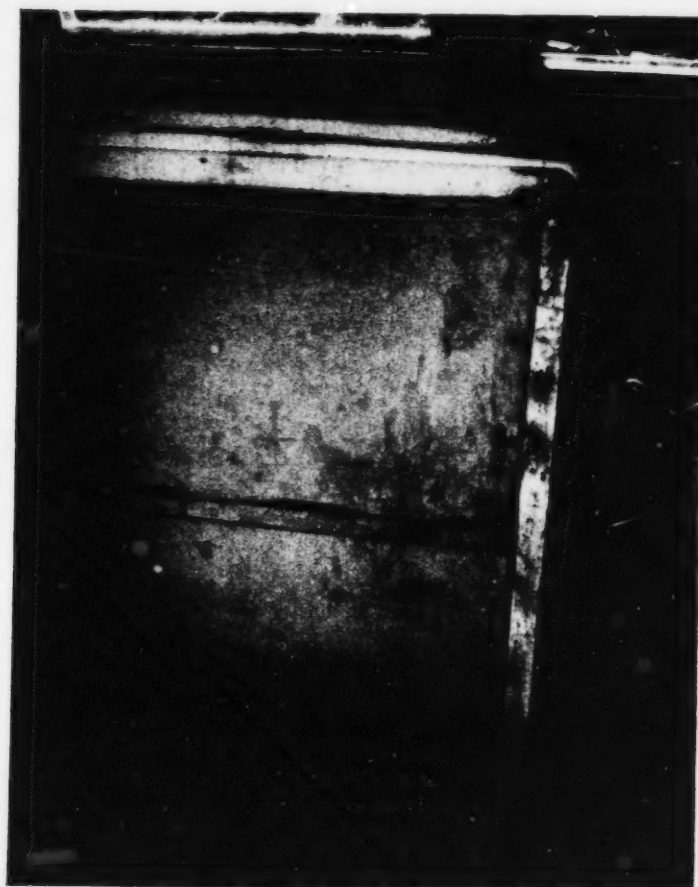


"BROWN BOMBER II" at Clark's Harbour 11-6-87.

Note: broken wheel-house windows and skylight to accommodation.

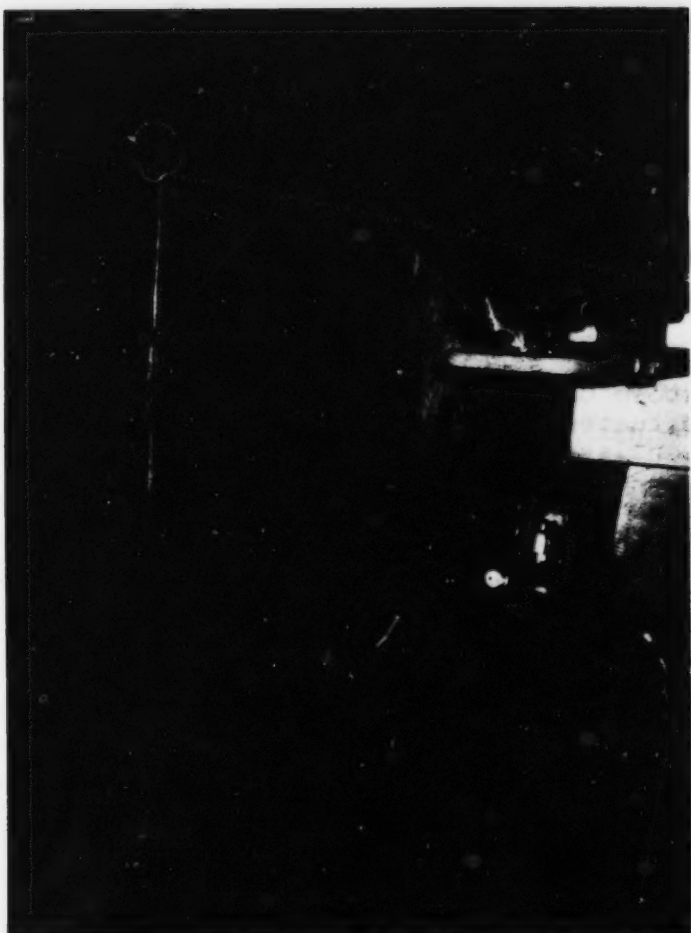
"BROWN BOMBER II" à Clark's Harbour 87-6-87.

Nota : fenêtres de la timonerie et claires-voies des
emménagements cassées.



View of entrance
to accommodation
from inside.
(Door closed)

Entrée aux
emménagements
vue de l'intérieur.
(Porte fermée)



View of entrance
to accommodation
from wheel-house.
Note: Smoke
blackening to left
of sliding door
(closed).

Entrée des
emménagements
vue de la timonerie.
Note : noircissement
par la fumée à la
gauche de la porte
coulissante (fermée).



View of bench on which the deceased lay down.

Banc sur lequel le défunt s'est étendu.

"PENNYPRIDE"

**Injuries to a crew member while engaged in fishing
on Sable Island Bank, N.S., June 24, 1987.**

Summary

The "PENNYPRIDE" is an all steel vessel which was built, and is used, for the purpose of scallop fishing. The engine and accommodation are situated aft and the fish-hold amidships. Fishing gear, consisting of 2 scallop rakes, are deployed overside, one on each side, from positions forward of the fish-hold; the rakes are periodically hauled on board and the contents retrieved.

The "PENNYPRIDE" departed Riverport, N.S., on June 17, 1987 bound for the Sable Island fishing grounds. The following day, she arrived at the grounds and commenced fishing in ENE winds at 5 knots, 1 m seas and reduced visibility of 10 m in dense fog.

The crew of 13 consisted of the master, mate, chief engineer, second engineer, a cook and 8 deck-hands. During fishing, all except the cook kept two watches comprising 6 hours on and 6 hours off, totalling 12 hours of work in each 24 hour period. The master, chief engineer and four deck-hands kept the 6-12 watch, the others kept the 12-6 watch. The master or mate manned the wheel-house and tended to the navigation, while the chief engineer or the second engineer manned the engine-room and tended to the engines. One of the deck-hands on each watch acted as a winchman and operated the winches for the towing wires attached to each rake; he also operated the winches for the tackles on two booms used for hoisting the rakes on board, then emptying the contents (dumping) and re-deploying (shooting away) the empty rakes. The other three deck-hands tended to the rakes as they were hauled on board, dumped and shot away; both rakes were towed and hauled on board at the same time.

At 0845 on June 24, while in position 43°29'N, 60°38'W, both rakes had been hauled on board, the contents had been dumped and, when the starboard rake was being shot away, a shackle on one of two chains known as 'dump' chains broke. The dump-chains are connected to the bottom end of the rake and as the name implies are principally used for hauling the bottom of the rake upwards in order to empty the contents.

At the time of the accident the process of shooting away had been partially completed, the middle part of the starboard rake was resting on the bulwark with the bottom end being lowered overside in order that another chain, referred

to as a 'tail-chain', could be reached and hooked on in order to haul the rest of the rake overboard. When sufficiently lowered, the hoist was stopped and on the resultant jerk the shackle which secured the end of one of the dump-chains to the bottom of the rake, broke. The chain whipped and struck a deck-hand who was reaching for the end of the tail-chain. The dump-chain caught around his neck and the end struck his right temple rendering him unconscious. Fishing was immediately stopped and the injured man carried some 3 m to a clear part of the deck where he was laid on his back and covered with blankets.

It was the usual practice to leave the dump-chains and tail-chain attached to the rake; consequently, they were towed over the sea-bed with the rake.

It is calculated that, from the time of commencing fishing operations to the time of the accident, the rake involved had been hauled in and shot away some 250 times while the vessel was proceeding at an average speed of approximately 4.5 knots, covering a distance of some 280 miles.

The victim regained consciousness but was bleeding from the nose, mouth and ear and had lost the feeling in one arm. It was decided that he should be hospitalized as soon as possible; consequently, the ship diverted to Halifax. She was at that time some 150 miles distant and at her maximum speed of 9.7 knots would require approximately 15.5 hours to arrive.

At 0905, the CGRS Halifax, upon being notified of the accident by the "PENNYPRIDE" contacted a hospital in Halifax for medical advice and also notified RCC Halifax who initiated a MEDEVAC of the injured crew member. The first unit to arrive on-scene was a fixed-wing aircraft at 1130 but, owing to dense fog, the SAR Techs could not be parachuted. The helicopter, which had landed for fuel en route, arrived on-scene at 1339 and after directing the "PENNYPRIDE" to a clear area in the fog, some 1.5 miles distant, lowered the 2 SAR Techs to the deck of the vessel. After rendering first aid, the patient was hoisted aboard the helicopter at 1440 and transported to Halifax. After landing at 1600, the patient was transported to hospital for further medical treatment.

Findings

The Canadian fishing vessel "PENNYPRIDE" was engaged in scallop fishing on Sable Island Bank off the south-east coast of Nova Scotia when a shackle securing part of the fishing

tackle to the fishing gear broke, causing a chain under tension to whip and strike a crew member.

The crew member suffered serious injuries and was airlifted to hospital. The precise cause of the shackle breakage cannot be determined due to its loss, however, it would appear that:

- the abrasive action of the sea-bed as the shackle was being towed behind the fishing gear weakened it to an extent that it could no longer serve its purpose and/or the shackle pin became fully or partially unscrewed due to its motion in the lug on the rake to which it was secured;
- the lowering of the rake should have been stopped before an attempt was made to reach and grasp the tail-chain, and
- the rake should not have been lowered until the immediate area was clear of personnel.

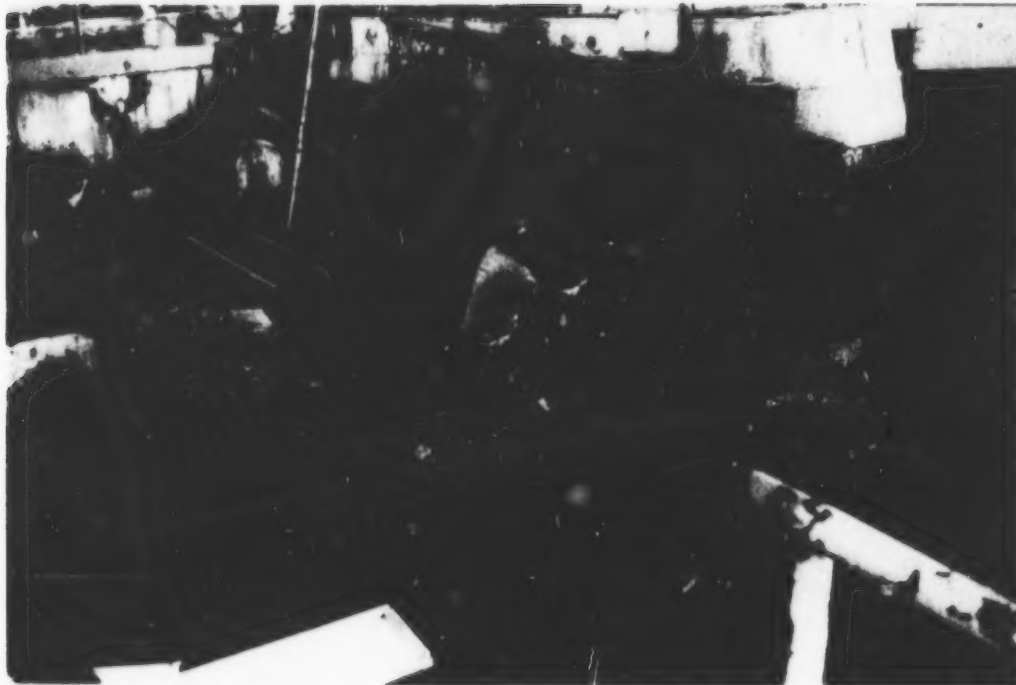
Other Findings

The nature of the fishing is such that all the dump-chains, tail-chain and shackles indicated signs of distortion and weakening due to abrasion and stress, it is not unusual for such fishing tackle to part.

The new Coast Guard Standard for Inspection of Tackle on Large Fishing Vessels does not apply to the fishing gear but does apply to the 'tackle' and 'integral gear', which includes shackles. An interpretation must be made in the case of a shackle attached to the fishing gear.

**DEMONSTRATION OF SHOOTING AWAY
THE RAKE INVOLVED IN THE ACCIDENT**

**MOUILLAGE DES CHALUTS IMPLIQUÉS
DANS L'ACCIDENT**



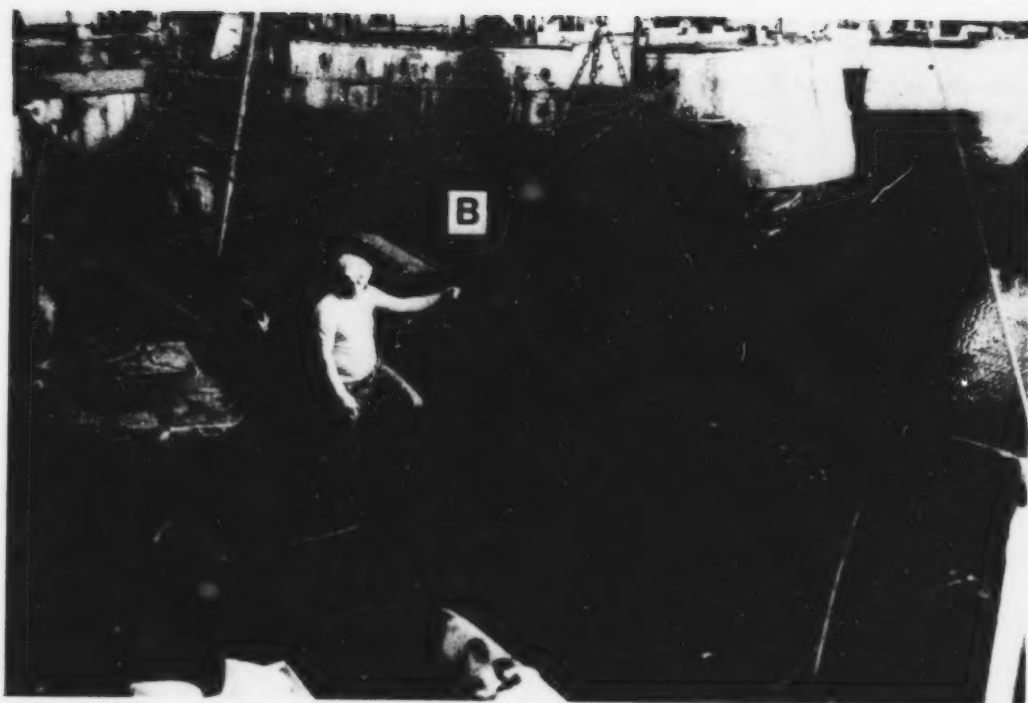
Contents dumped, rake supported by dump chain, partially lowered and being pushed overside.

Le contenu déchargé, le chalut à râteau supporté par les chaînes de déversement, légèrement abaissé et poussé par-dessus bord.

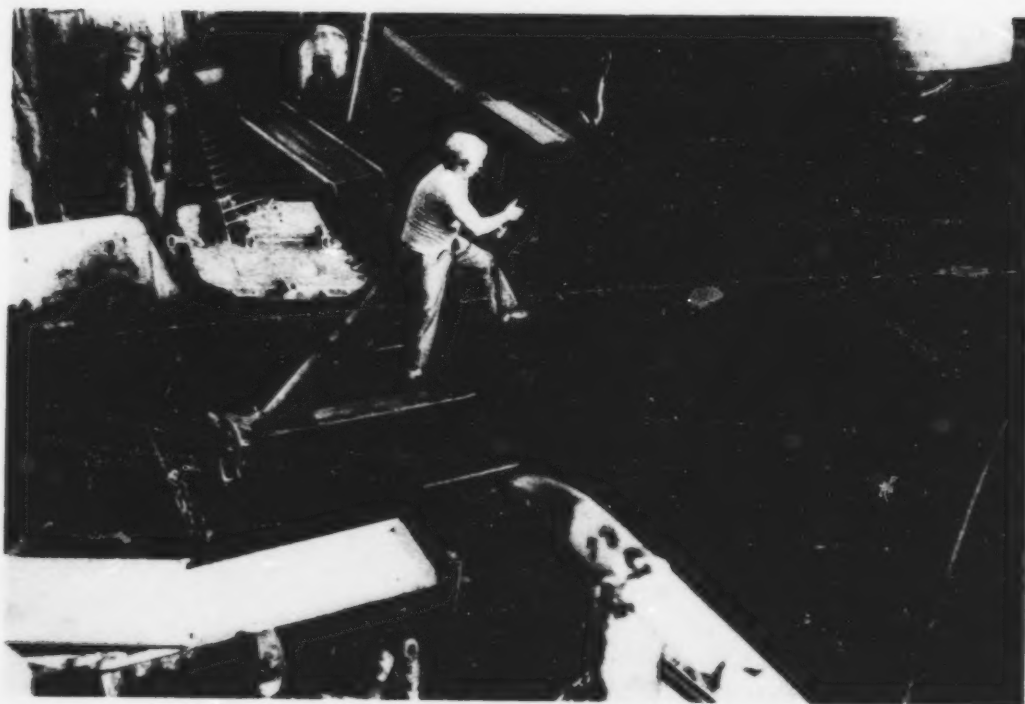


Bottom of rake overside, lowering stopped and crew member grasps tail chain. It was shortly before this, as the lowering was stopped and the crew member was reaching for the tail chain, that the shackle (A) broke.

Le fond du chalut est par-dessus bord, l'abaissement arrêté et le membre d'équipage s'agrippe à la chaîne 'lève-nez'. La manille (A) a cassé peu de temps après qu'on ait arrêté d'abaisser le chalut et que le membre d'équipage ait étendu le bras pour prendre la chaîne 'lève-nez'.



Continuation of shooting away. Reprise du mouillage du chalut.



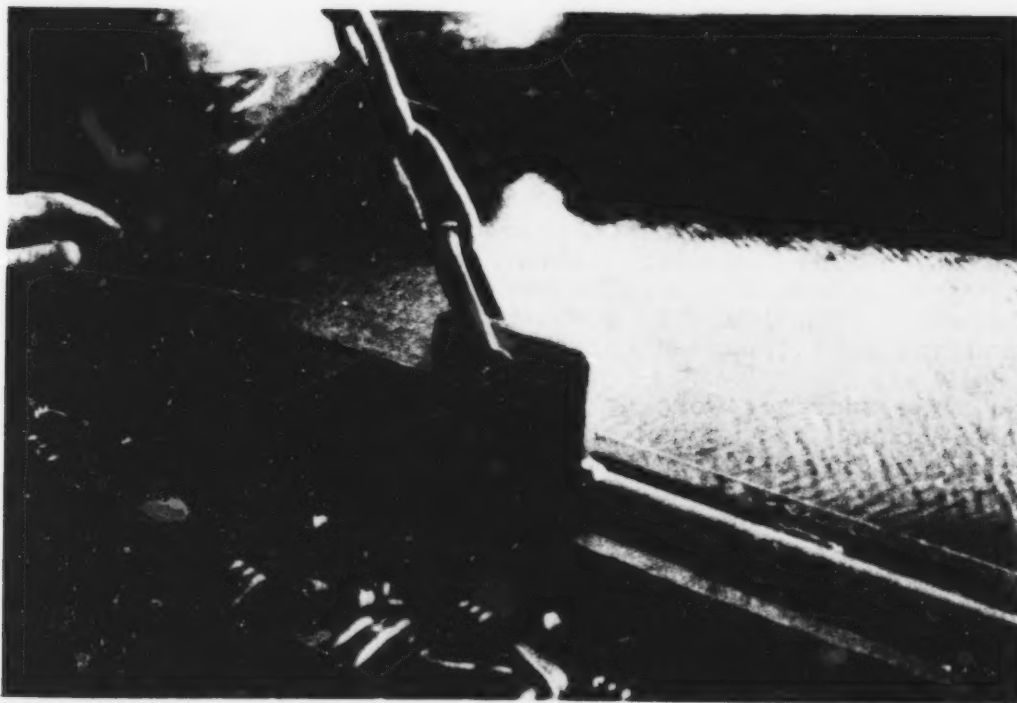
Tail chain attached to rake in order to haul
overside. The rake would then be supported by
the towing wire attached by the shackle to the
front of the rake 'B'.

La chaîne 'lève-nez' sert à soulever le chalut
à râteau par-dessus bord. Le chalut serait
maintenant supporté par les funes assujetties
par des manilles à l'avant du râteau (B).



Unused shackle.

Une manille non-utilisée.



Replacement shackle and lower end of dump-chain.

Une manille de rechange et la partie inférieure de la chaîne de déversement.

NOTE: the 'squared' shank of the shackle due to abrasion and the distorted links of chain. The shackle had been used for 4 days fishing.

NOTA : la tige de la manille devenue 'carrée' à cause de frottement et des maillons de la chaîne gauchis. La manille a 4 jours de pêche d'usure.

"MYRTLE ELAINE"

Grounding of the vessel and the disappearance of the crew member off the south-east coast of P.E.I. July 23, 1987.

Summary

The 35 gross-ton "MYRTLE ELAINE" is a typical Canadian fishing vessel operating off the coast of P.E.I. and N.S. with accommodation forward, engine-room amidships and a fish-hold aft. The wheel-house is situated above the engine-room and accommodation. A doorway in the after starboard side of the wheel-house gives direct access to the afterdeck. Bulwarks 71 cm high run the length of the deck on both sides abutting the transom at the stern. There was no watch alarm system fitted aboard the vessel nor was one required by regulations.

On July 22, 1987, the vessel made a trip from Souris, P.E.I. to Cheticamp, N.S., to deliver some fishing tackle. After off-loading the tackle the following morning, the vessel departed Cheticamp at 1045 for the return trip with her crew of two. During the night, the deck-hand had barely slept spending most of the night conversing with other fishermen.

The weather was calm with good visibility throughout all of July 23. The vessel was proceeding at a speed of 8.5 knots and was being steered by autopilot which was set on a converging course to the land of 275°(M) to make good a course of 252°(T). There were no other vessels in sight in the area and at 1615, the operator handed over the watch to the deck-hand with instructions to maintain a distance of at least one mile off the land upon reaching the coast of P.E.I. and to call him 30 minutes prior to the vessel's arrival at Souris. The operator then proceeded to his bunk in the forward accommodation, below the wheel-house, and fell asleep. From 1045 to 1545, both the operator and the deck-hand had each consumed three 341 mL bottles of beer.

The operator woke up at 1745. He proceeded to the wheel-house and found the vessel to be grounded at the shoreline in position 46°22'N, 62°08'W. The engine was still running at full speed, the autopilot engaged and the radar switched on and operating. There was no sign of the deck-hand and a quick inspection of the vessel did not reveal his whereabouts. The vessel was immediately backed off the shore into deeper waters and an unsuccessful search of the immediate area, carried out.

At 1830, the "MYRTLE ELAINE" reported the grounding and missing person to Charlottetown Coast Guard Radio Station who in turn alerted RCC Halifax setting in motion SAR operations.

An extensive search by 10 marine units, 2 air units and ground search parties covering a total of 450 square miles and 19 hours search time failed to locate the victim and at 1420, July 24, the case was handed over to the RCMP as a 'missing person' case.

The casualty resulted in the loss of a crew member and no damage to the vessel.

Findings

The Canadian inshore fishing vessel "MYRTLE ELAINE" while enroute from Cheticamp, N.S. to Souris, P.E.I., grounded at her full service speed on the coast of Prince Edward Island, in daylight and in fine, clear weather. She was re-floated shortly after grounding with no apparent damage and without causing pollution.

It would appear that the vessel grounded due to being unattended, the deck-hand who had been given the conduct of the vessel having fallen overboard.

Acknowledging that there were no witnesses to the event, it would appear that he fell overboard and was lost due to the following factors:

- the missing person had no more than 4 hours sleep during the previous 24 hours;
- the work being undertaken was that of navigation only which was not physically demanding promoting alertness;
- alcohol had been consumed;
- the combined effect of little sleep, minimal navigation duties and alcohol caused him to leave the wheel-house, walk on the afterdeck, possibly to urinate and fall against the ship side, then overboard; and
- he was a non-swimmer and wore no form of flotation device.

Other Findings

The fitting and use of a watch alert system might have alerted the operator.

The delay in not immediately reporting the missing person to the Canadian Coast Guard did not comply with the requirements of the Shipping Casualties Reporting Regulations and delayed the SAR initiative.

63° 00'

62° 00'

53°

Adjoining Chart 4023

50'

POSITION WHERE
THE OPERATOR
LEFT THE
WHEEL-HOUSE

LIEU OÙ LE
PATRON DE PÊCHE
A QUITTÉ
LA TIMONERIE

COURSE
ROUTE
SPEED
VITESSE

275° (M) 252° (T)
275° (M) 252° (V)
9.5 KNOTS
9.5 NOEUDS

THE DECK-HAND PROBABLY
FELL OVERBOARD BETWEEN
POSITIONS "A" & "B"

LE MATÉLOT EST TOMBÉ À L'EAU "B" ET
LE NAVIREMENT TOMBÉ À L'EAU "A" ET
PROBABLEMENT ENTRE LES POSITIONS
"A" ET "B"

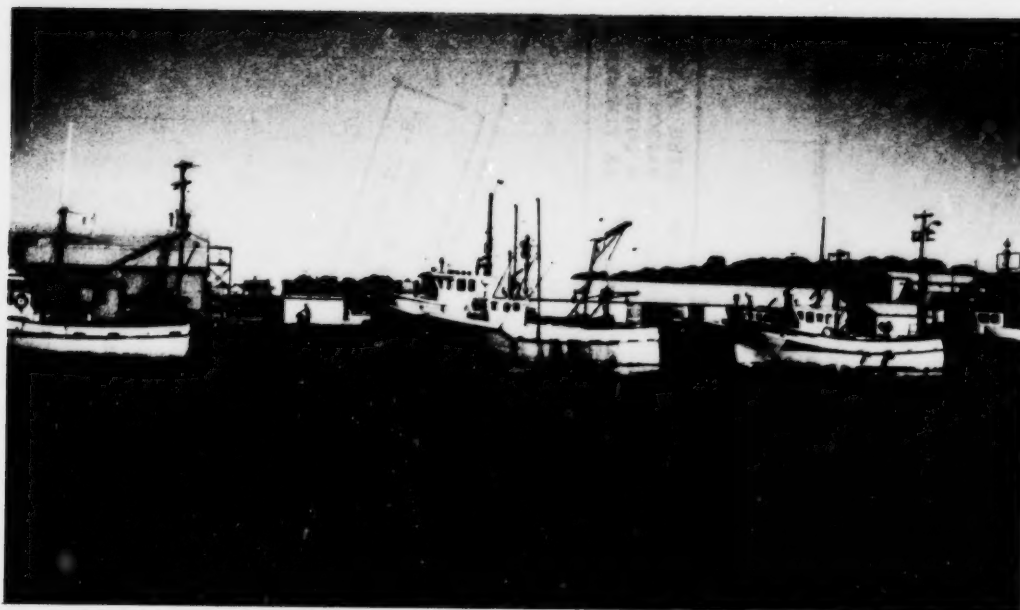
VESSEL'S INTENDED
ALTER COURSE POSITION
PROJETÉE DU NAVIRE

CHANGEMENT DE ROUTE
PROJETÉE DU NAVIRE

POSITION OF GROUNDING
LIEU DE L'ÉCHOUÉMENT

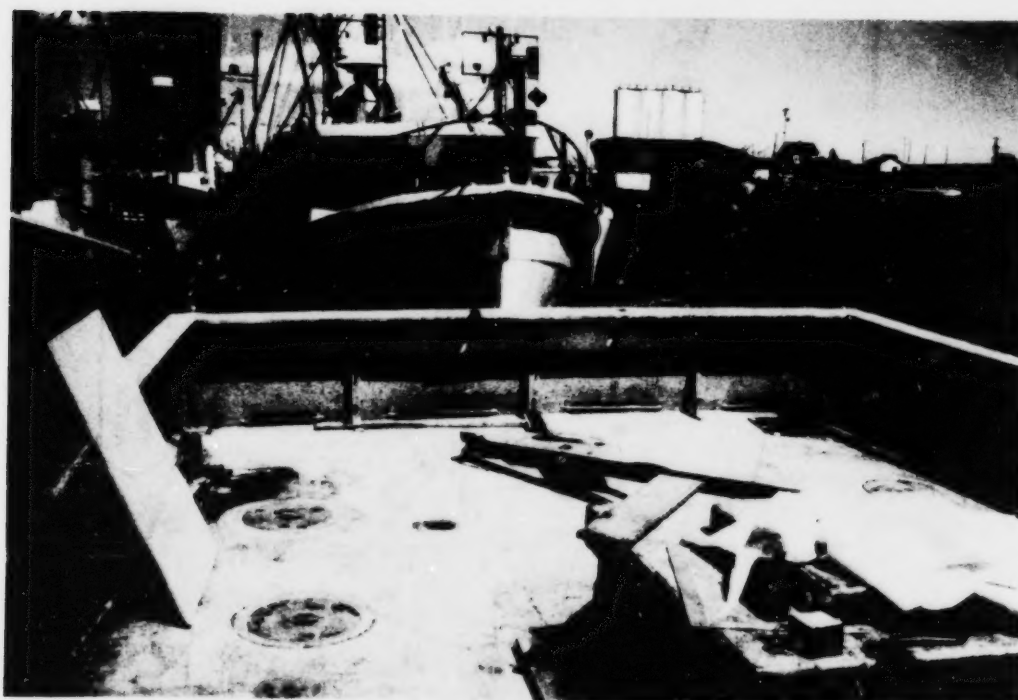
REDUCED SECTION
OF CHS CHART
No. 4403

SECTION RÉDUITE
DE LA CARTE
N° 4403 DU SHC



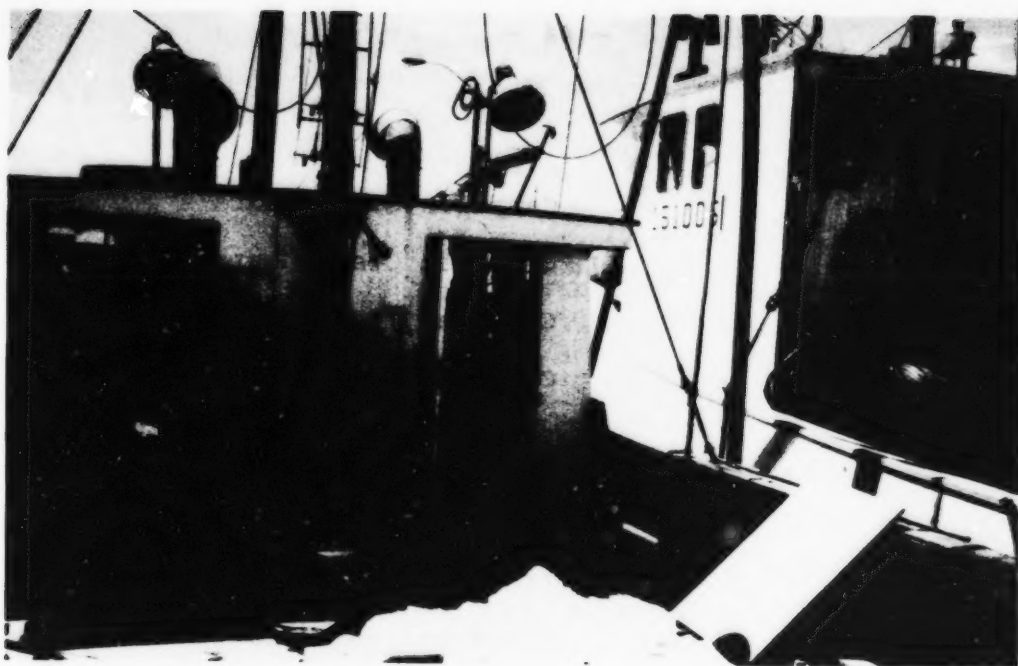
"MYRTLE ELAINE" is the centre, outboard boat.

Le "MYRTLE ELAINE" est celui du centre, vers le large.



Afterdeck "MYRTLE ELAINE". Note bulwarks at sides and transom. The deck was clear during the trip.

Pont arrière du "MYRTLE ELAINE". À remarquer : le pavois aux côtés et le tableau arrière. Le pont était libre au cours du voyage.



Access to wheel-house from afterdeck, steering/operating position to starboard.

Accès à la timonerie du pont arrière, poste de bord/de commande à tribord.



View of position, approximate, where "MYRTLE ELAINE" grounded; discoloured water indicates gradual shoaling.

Lieu approximatif de l'échouement du "MYRTLE ELAINE"; le changement de la couleur de l'eau indique les hauts-fonds.

Glossary

CCG	Canadian Coast Guard
CCGC	Canadian Coast Guard Cutter
CCGS	Canadian Coast Guard Ship
CGRS	Coast Guard Radio Station
CMRA	Canadian Marine Rescue Auxiliary
ETA	Estimated time of arrival
Fish Packers	Fishing vessels being used only for transportation of fish
FPV	Fisheries Patrol Vessel
Free surface effect	Whenever there is a surface of liquid which is free to move, there is a loss of effective GM due to a virtual rise of the vessel's centre of gravity and the loss of stability caused by the movement of liquid in partially filled compartments when the vessel rolls. This movement may involve a large shift of weight.
Freeboard	The distance between the waterline and the upper edge of the weather deck.
FV	Fishing Vessel
GM	The distance between the transverse metacentre and the vertical centre of gravity, and is an indication of a vessel's ability to right herself when heeled over.
M	Magnetic
Mayday	Distress signal
MEDEVAC	The urgent evacuation of a person from a vessel for medical reasons
MRSC	Marine Rescue Sub-Centre

Port of refuge	A reasonably safe place of retreat from winds or storms
r.p.m.	Revolutions per minute
RCC	Rescue Co-ordination Centre
SAR	Search and Rescue
SFV	Small fishing vessel
SIC	Steamship Inspection Certificate
SSB	Single sideband radio
T	True
Trim	The difference between the draught forward and aft
VHF	Very high frequency radio